#### THE JOURNAL

OF THE

# ANTHROPOLOGICAL INSTITUTE

OF

#### GREAT BRITAIN AND IRELAND.

JANUARY 12TH, 1897.

E. W. BRABROOK, Esq., F.S.A., President, in the Chair.

The Minutes of the last Meeting were read and signed.

The following communications were read:-

"On the Transition from the use of Copper to that of Bronze." By Dr. J. H. GLADSTONE, F.R.S., and "On the Bronze of S.E. Europe." By J. L. Myres, M.A., F.S.A.

Discussion was carried on by Messrs. Evans, Gowland, Myres, Balfour, and Rudler.

On the Transition from the use of Copper to that of Bronz.

By Dr. J. H. GLADSTONE, F.R.S.

The following paper is substantially a communication made to the Anthropological Section of the British Association at Liverpool last September. The materials for it were founded upon the analyses of copper and bronze implements kindly given to me by Prof. Flinders Petrie, Mr. Bliss, Mr. Rylands, Mr. Arthur Evans, Mr. Joseph Offord, and Mr. Spiller, and of minerals and VOL. XXVI. ancient copper slags furnished by Prof. Bonney: also the analyses made by Dr. Percy, M. Berthelot, Prof. Roberts-Austen and others. Most of my results have been published in the "Proceedings of the Society of Biblical Archæology."

The first metal employed by man to any extent was gold, which occurs native in many regions of the earth: but this seems to have been used mainly for ornamental purposes. Copper also sometimes occurs native, and many of its ores are easily reduced. There is no wonder, therefore, that it was employed in very early times, and in different countries, for the manufacture of implements designed for domestic, military, and

other purposes.

We know from existing inscriptions that the copper and turquoise mines of the Sinaitic peninsula were taken possession of by Seneferu, a king who reigned as far back as the fourth dynasty, at the very beginning of authentic Egyptian history; and that these mines were worked to about the end of the nineteenth dynasty. Tools made of copper have been found in Medum and Gizeh, dating from the fourth to the sixth dynasty: a curious object called Pepi's sceptre, now in the British Museum, and analysed by Berthelot, dates from the sixth dynasty.2 A basketful of tools found by Flinders Petrie at Kahun, and dating from the twelfth dynasty, probably about B.C. 2500, were found also to be made of copper.<sup>3</sup>

In Mesopotamia a very ancient knife made of nearly pure

copper, without tin, has been found at Tell el Sifr.

M. de Sarzec found at Tello, in Chaldea, a votive figure, in the foundations of an edifice more ancient than constructions which are estimated at forty centuries B.C. Berthelot found it to be of copper deeply encrusted with oxide, and without any

As to Asia Minor, the lowest treasures found at Hissarlik, the supposed seat of Troy, comprise pins and nails made of

copper, according to Prof. Roberts-Austen's analysis.5

More instructive still is the great mound of Tell-el-Hesy in Palestine, believed to be Lachish. In the lowest part of this mound were discovered adzes, knives, etc., of copper belonging to the time when it was an Amorite city, before its conquest by the Israelites under Joshua, and therefore in all probability before the nineteenth dynasty of Egypt, say about 1500 B.C.

<sup>1 &</sup>quot;Proc. Biblical Archeology," February, 1892.

<sup>&</sup>quot;Annales de Chimie et Physique." Série vi, 12, p. 129.
"Proc. Biblical Archæology," March, 1890.
"Comptes Rendus," January 30, 1893.
"Ilios." Schliemann.

<sup>6 &</sup>quot;Proc. Biblical Archæology," February, 1894.

The "new race" whose remains were discovered by Flinders Petrie at Nagada, in Egypt, and who are supposed to be Lybians who invaded Egypt from the West, had a few metallic implements. The dagger, celt, and harpoon were examined, which proved to be of copper and not bronze.

But tools made of copper are not so hard as the flint implements which they gradually displaced; and we can well understand the desire of the ancient peoples to harden their tools and thus render them more serviceable. This seems to have been

effected in three different ways.

1st. By admixture of the red oxide of copper, called by chemists cuprous oxide, or perhaps more correctly by the production of that substance in quantity during the smelting of the ore. Thus at Lachish some of the tools of the Amorite epoch were found to be excessively hard and red; an adze which was analysed giving about 24 per cent. of cuprous oxide. A similar adze obtained from a reliable source in Egypt, and ascribed to the eleventh dynasty, is found to be almost identical in its character and composition. The little harpoon from Nagada, and some other early implements also contain a considerable amount of cuprous oxide, but it is quite possible that this was rather accidental than intentional. That it was intentional in the case of the two adzes mentioned above, appears to me clear, not only from the large quantity of the oxide, but from the fact that other early copper or bronze implements which have been similarly buried in the soil are not found to contain any large proportion of it. We can readily imagine that early workers in copper might obtain a metal rich in suboxide through prolonged fusion in the air, as indeed is the case in what is now called "dry copper," a very hard and brittle substance. A very few per cent. of the suboxide of copper is sufficient to prevent copper being malleable; and it is quite certain that the specimens described above could not have been hammered into form. We know, however, that the ancient plan of preparing metal implements was by casting in moulds.

2nd. The presence of arsenic or antimony. The copper tools discovered at Kahun were found on analysis to contain arsenic; n one instance, that of a large hatchet, to the extent of 3.90 per cent. Dr. Percy found 2.29 per cent. in a knife which was certainly anterior to the time of Rameses II. M. Berthelot has just described the composition of certain tools found in the deserted copper mines of the Sinaitic peninsula, and which may therefore be supposed to have been left behind when the mines were abandoned. One of these, a broken pick, was "fortement

arsénicale." Two needles and a pin found in the old necropolis of Tonkh, between Memphis and Abydos, contained some artenic. M. Berthelot did not find arsenic in any of the Sinaitic minerals that he examined, and concludes that it must have been introduced into the metal on purpose. In other cases it may be quite possible that it existed in the ores employed. A very small percentage would be sufficient to give a harder metal than usual, and therefore a more serviceable one. Traces of antimony were also found in the ancient tools both of Egypt

and Palestine.

3rd. The presence of a small quantity of tin. This metal, to the extent of 2.16 per cent., was found in a chisel from Kahun, and smaller quantities of it in the hatchet and knife. The mirror handle contained a decided amount of tin. Dr. Percy's knife, and the needles from Tonkh, also contained a trace. A knife dagger found in Cyprus, borings from which were given me by Mr. Arthur Evans, contained tin to an extent not exceeding one per cent. It is notable that the implements belonging to the Lybian race did not contain any amount of this metal. There can be little doubt that the admixture of tin was made for the purpose of hardening the copper, like the arsenic and antimony, and small as it is it would have an appreciable effect. That so little was employed in these very early days was probably due to its costliness. It is possible also that it existed originally in small quantities in some copper ores; which would in consequence be much sought after as producing a good hard We can well understand that, especially in early times, tin would only be intentionally added to the copper where strength was required; thus at Mykenai the kettles and other domestic utensils were made simply of copper, while the swords, and such articles de luxe as a vase were made of good bronze. Similarly the nuraghs of Sardinia contain bronze statuettes on copper pedestals, and bronze swords with copper mountings.1 Of course we are still in the habit of using copper or brass (alloy of copper and zinc) in place of bronze (copper and tin) where the cheaper metal will equally suit our purpose.

The great advantage of mixing tin with copper was gradually perceived, and the favourite metal for tools became that alloy which is known as bronze. This is very evident at Kahun. Among the implements found there, occur needles. Some of these were of copper, and therefore easily bent, and ill adapted to the purpose required; but others were found to contain a considerable amount of tin, and had the necessary hardness.

<sup>1</sup> Perrot and Chipiez, "Historie de l'Art dans l'Antiquité," vol. iv.

These are among the earliest examples of bronze. A fragment of a graving tool from the Sinaitic mines was found to be very hard; and Berthelot describes it as a bronze very poor in tin and free from arsenic. The tools found by Mr. Petrie at Gurob, which date from the eighteenth dynasty, about 1200 B.C., also exhibit this transition. Two hatchets, the one small and the other large, gave respectively 6.67 and 7.29 per cent. of tin. Similar weak bronze was found in the third city of Hissarlik, in battleaxes and other implements. Analyses made by Damour, by Lyons, and by Roberts-Austen yielded from 3.84 to 8.64 per cent. In that portion of the mound of Lachish which belonged to the Israelitish period were found a quantity of nails and other articles of bronze, which were very much corroded, but gave a considerable percentage of tin. But, in fact, bronze containing about 9 to 10 per cent. of tin, much the same as our modern gunmetal, is to be found pretty well all over the civilised world, after, say, B.C. 1000, and was used for all kinds of purposes, until it in its turn was gradually displaced by iron and brass. The word translated "brass" in the Bible, may in some of the earliest records be applied to copper implements, but generally speaking it doubtless means "bronze"; this was used for the furniture and ornaments of the tabernacle, for armour and arms, for fetters, and for city gates; and there were even bows of bronze.3

When strength was not required, as in the case of statuettes, the bronze employed was much weaker in tin, but contained in its place lead, which was of course cheaper, and gave a more fusible alloy. Thus Meccant found in the bed of the Orontes some Hittite bronze figures of very archaic design, which contained 3.9 per cent. of lead and only 3.4 of tin. A bronze image found at Bubastis which I examined contained a fair amount of lead and a little tin: its date must be previous to B.C. 352, as the town was destroyed in that year.

We have no evidence in what form the tin was brought into the Levant; but that the Egyptians were acquainted with it in the metallic condition is proved by a finger ring of that metal which was found by Dr. Petrie at Gurob, dating from the latter part of the eighteenth dynasty. My attempt to find tin in the minerals and slags from the Sinaitic peninsula which were given me by Professor Bonney, gave a negative result.

A far earlier example, if it be genuine, is a rod of bronze which Mr. Petrie obtained from a mastaba at Medum, of the fourth dynasty, and which contains about the ordinary amount of tin of the later period. "Proc. Biblical Archæology." February, 1892.

ology," February, 1892.

<sup>2</sup> See Revised Version, 2 Samuel xxii, 35, Job xx, 24.

<sup>3</sup> "Proc. Biblical Archæology," March, 1890.

<sup>4 &</sup>quot; Illahun," p. 19.

Our knowledge of early copper implements is still very meagre. Those of which the date is approximately known, and which have been analysed, are very few in number. I venture to think it is fairly established that the early civilized nations around the Mediterranean formed tools and weapons of copper in place of the wood and stone previously employed by them or their savage ancestors: that they found certain methods of treating the ores produced a red metal which was harder than that usually obtained, and that certain kinds of ores also furnished a stronger copper. Without understanding the cause of this, they would naturally adopt such plans as experience showed to be best, and would probably try admixture of other substances. Gradually they found that the addition of a certain black ore, or of the metal derived from it, produced an excellent result; and as the demand for bronze increased the trade in tin increased also. There must have been a large traffic in the metals, or perhaps in the implements themselves—the similarity in the shape of the tools in different countries rather favours the latter supposition. Thus nation after nation gradually passed from the use of copper to that of bronze.

#### APPENDIX.

This appendix is intended to give a fuller account of the analyses of the implements mentioned in the paper, with one or two additions. It is classified by countries, and, as far as possible, the different specimens from the same country are arranged in chronological order. I have not included any analysis of a specimen of copper or bronze that is not believed to be of earlier date than B.C. 1000. Except where the authority for the analysis is given, it is to be understood as having been made in my own laboratory.

EGYPT. Nagada. The Libyans: see text, p. 311. Gizeh. Pyramid of Cheops. Walter Flight.

				D	agger handle.
Copper Iron	 		 		99.52
Iron	 	1122	 		48

Medum. See p. 310, and note, p. 313.

		Adze No. 1.	Adze No. 2.	Bronze rod.
Copper	 	 bulk	bulk	89.8
Arsenic	 	 .38	.54	·5
Antimony	 	 trace	trace	trace
Iron	 	 23		99
Sulphur Tin	 	 29	"	99
Tin	 	 none	none	9.1

2.1e l'

"Pepi's Sceptre." Copper, without any tin or zinc, but containing a possible trace of lead. Berthelot.

Kahun. See pp. 310 and 312.

		Hatchet.	Round chisel.	Mirror handle.	Needle
Copper	 	93.26	96.35	95.0	bulk
Arsenic	 	3.90	.36 {	more than	} trace
Tin	 	.52	2.16	"	10.0
Antimony	 	.16	-	=	trace
Iron	 	.21	-	_	

# Knife under Statue of Rameses II, p. 311. Percy.

# Thebes. Knife mentioned by Dr. Budge. "Archæologia," LIII, 83.

## Gurob. See p. 313.

		Small hatchet.	Large hatchet.
Copper	 	 89.59	90-09
Tin	 	 6.67	7.29
Arsenic	 	 .95	-22
Antimony	 	 trace	trace -
Iron	 	 •54	_

# Sinaitic Mines. See p. 312. Berthelot.

			Broken pick.	Graver.	Needle.
Copper Tin	••	• •	 bulk	bulk	bulk
Tin			 none	little	none :.
Arsenic			 much	none	little

Necropolis of Tonck. See p. 312. Berthelot.

Two needles and pin of copper with a little tin and arsenic, Chaldea. Tello. See p. 310. Berthelot.

									Vo	otive figure	
0	opper									77.7	
1	Vater									3.9	
(	xygen									6.1	
0	hlorine				* *					7.1	
8	lilica									3.9	
78	al	0	1-	1		and land	I 4	41	:4h	A	1:

Traces of sulphur, arsenic, and lead, together with carbonate of lime, alumina, &c.

# Tell-el-Sifr. See p. 310.

_					Knite.
Copper		 	 	 	98.6
Iron		 	 	 	.7
Sulphu	ır	 	 	 	.2
Tin		 	 	 	none
Gold		 	 	 	doubtful

India. Gungeria. Asiatic Society of Bengal. May, 1870. Hatchets. Pure copper. Percy. Orontes. See text, p. 313. Palestine. Tell-el-Hesy. See pp. 310 and 313.

### Amorite period.

		Adze.	Knife.	
Copper	 	 949	97.0	
Copper Oxygen Lead	 	 2.7	some	
Lead	 	.68	trace	
Iron	 	 .77	.15	
Tin	 	 doubtful	none	
Antimony	 	 ,,	trace	

### Israelite period.

Copper Tin	 	 	 	 63.4
Tin	 	 	 * *	 7.5
Lead	 	 	 	 none

CYPRUS. Congrés d'Anthropologie. Stockholm, 1874, p. 346. Walter Flight.

		Knife.	Lance head.	Lance head.	Dagger blade
Copper	• >	 97.22	98-39	99.47	89:77
Tin		 trace	none	none	8.50
Iron		 1.32	.72	. 38	47
Lead		 .07	none	none	1.50
Arsenic		 1.34	trace	trace	
Gold		 .27	.30	none	-
Nickel		 none	.15	.08	trace
Cobalt	-	 -	_		.30

Knife dagger. See text, p. 312. HISSARLIK. See p. 310.

Lowest City. Roberts-Austen.

		Gilded knife blade.	Needle or pin.	Needle or pin.
Copper	 	 97:4	97.83	98.20
Copper Tin	 	 none	·21	trace
Iron	 	 	.90	.75
Sulphur	 	 -	_	.13

Second	City.	Of the same	character.
Third	City.	Battle axes.	Damour.

Copper	 	 • •	95.80	 90.67
Copper Tin	 	 • •	3.84	 8.64

### Battle axes. Roberts-Austen.

Copper	r		 	95.41	 93.80	
Tin			 	4.39	 5.70	

# Sixth City. Battle axe. Damour.

Copper	 	 	 	 93.32
Tin	 	 	 	 7:39

# Mykenal. See text, p. 312. Dr. Percy.

		Kettle.	Sword.
Copper	 	 98:47	86:36
Tin	 	 .09	13.06
Lead	 	 .16	•11
Iron	 	 .03	.17
Nickel	 	.19	.15
Arsenic	 	 .83	none
			bismuth, silver,

SARDINIA. See text, p. 312.

P.S.—Since the above was read at the Society Berthelot has presented to the French Academy ("Comptes Rendus" of Feb. 15) an important communication on other metallic objects found at Tello. One is a colossal lance of red metal, much altered; the filings consist of copper without any perceptible tin, lead, zinc, arsenic or antimony. Another is an adze of the same composition. A third is a curved hatchet or adze of hard metal; it is of copper, without tin, lead or zinc, but with traces

of arsenic and phosphorus, to which M. Berthelot attributes its hardness.

Mr. Gowland considered Dr. Gladstone's paper to be a very valuable contribution to the early history of copper and bronze. Yet he thought that the evidence which had been adduced, although of considerable weight, was hardly sufficient to justify us in stating absolutely that a copper age preceded a bronze age in every country. The material of which the fighting weapons of a race was made was perhaps the most important factor in determining the character of an "age," yet in the paper we find no weapon of copper of earlier date than the knives of Tell-el-Hesy, whilst a hatchet and knife of the Kahun "find" (probably one thousand years earlier) both contained tin. Then of other objects a rod of bronze from Medum is as old as any object of copper.

The small proportion of tin in some of the early objects may be due, as suggested, to the scarcity and consequent costliness of the metal; on the other hand, the alloy may have been the direct result of smelting an oxidized copper ore containing tin ore (cassiterite). There are several examples at the present day of the production of alloys by smelting compound ores, as for instance in Hida, Japan, where an alloy of copper containing 10 per cent., and more of lead is obtained from a mixed ore of copper and lead; and in the Malay Peninsula, where an ore on

smelting yields pewter (an alloy of tin and lead).

That copper was allowed to oxidize during melting with the intention of hardening it, is a point on which he differed from Dr. Gladstone, because there is a more natural explanation of the occurrence of excess of cuprous oxide. Besides, copper is not much hardened by its presence not nearly so much as by simply hammering the ordinary metal. He had found that 10 per cent. and Hampe 18 per cent., had not much hardening effect.

In all primitive furnaces—and he had had considerable experience with such in Japan—the copper obtained always contained an excess of cuprous oxide, and it is only when the metal contains an excess that it can be cast in a "closed" mould such

as that required for a celt.

For these reasons excess of the oxide is found in all such

castings.

He agreed with Dr. Gladstone that the arsenic which had been found in some copper implements was certainly not due to its intentional addition lent to the smelting of arsenical ores of copper, just as in the present day the copper from the South of Spain contains large quantities of arsenic.

Respecting the absence of arsenic and tin from the ores of

the Sinaitic Peninsula examined he thought that Dr. Gladstone would agree with him that the specimens analysed are yet too few in number to enable us to say definitely that these metals do not exist in that rather extensive mineral district. He desired further to point out how very necessary it was to exercise the greatest caution in drawing conclusions from a few analyses only, respecting the manner in which any ancient alloys had been made and the intentions of their makers. He had already cited examples of the direct production of alloys from ores, and would now adduce two cases of extreme variations in the composition of alloys due to the primitive processes employed in their manufacture.

In the old Korean mint where coins consisting of copper, lead, tin and a little zinc were being cast by very rude methods when he visited it, he had found that some coins contained 4.88 per

cent., and others only 0.95 per cent., tin.

In one issue of old Japanese copper-lead-tin coins the average proportion of copper was 77.3 per cent., but when single coins were analysed it ranged from 69.8 to 86.8 per cent. He thought the paper was a most valuable one, although on one or two points his views differed somewhat from Dr. Gladstone's.

Mr. Myres said that many of the early implements, though cast in an open mould, were certainly hammered to increase their density. Also that both in Cyprus frequently, and among the Libyan tombs at Ballas-Naqada, daggers, axes, and other offensive weapons, as well as domestic utensils and ornaments, were found of pure copper.

Mr. H. Balfour asked:—Is there any evidence in Europe of a stage in the early development of the metal age, at which raw copper was fashioned into implements by hammering and grinding alone, without being smelted? This stage is admirably represented in N. America, where nearly pure native copper was found in abundance on the shores of Lake Superior, and elsewhere, and was skilfully fashioned into implements by the natives without any smelting process, the metal being treated as though it were a kind of plastic stone by a people just emerging from their stone age. If we are to establish a continuity from the stone to the metal ages, some such stage seems to be necessary, as otherwise the jump from the ordinary methods applied to working stone into shape to the treatment of metals by smelting, is so wide a one that the continuity seems to break down. If evidence of this continuity is not forthcoming in Europe; whither must we look to find the traces of this important transitional period?

Dr. GLADSTONE thanked the audience for the cordial manner in which they had received his communication. There had no doubt been criticisms, as well as the addition of several interesting facts; but he did not think that any statement of his had been impugned, except when Mr. Gowland denied that the small quantity of cuprous oxide would make copper hard. This had been stated on the authority of Dr. Percy. There was no doubt that the adze found at Tell-el-Hesy, which was very rich in red oxide, was very hard indeed. Mr. Myres' observations on the hammering of celts which had been cast in a mould would warrant the addition of hammering as another means by which the ancients sought to harden their copper tools.

He did not think that the fact of no transition period between the use of stone and that of bronze being found in Japan and some other countries was any argument against the theory he supported. Some nations must necessarily be first in the discovery of the value of copper, and in the art of hardening it by tin; and when bronze tools became common, and the science of navigation advanced, they would naturally be carried as merchandize to other nations that had not yet advanced beyond the use of stone implements. Thus it is not likely that specimens of an intermediate stage would be found there. It appeared to him that the theory which explained the largest number of facts was that the ancient nations about the eastern part of the Mediterranean, Egypt, Chaldæa, Syria, Cyprus, Greece, Sardinia, did pass through a transitional period of the use of copper implements before the invention of bronze.

With reference to Mr. Rudler's request for the details of analyses, Dr. Gladstone was quite willing to add the figures, so

far as he can, in an appendix.

The KEEPARRA CEREMONY of INITIATION. By R. H. MATHEWS, L.S., Corres. Memb. Anthrop. Inst. of Great Britain.

#### [WITH PLATE XXXII.]

THE tribes whose initiation ceremonies are treated of in this paper occupied a tract of country on the eastern coast of New South Wales, extending from about Newcastle almost to the Macleay River, comprising approximately the counties of Macquarie, Hawes, Gloucester, and the eastern half of the county of Durham. Several different dialects were spoken by the tribes who occupied the districts referred to, including the Watthungk, Molo, Birrapee, Bahree, Kutthack, Minyowa,

Carapath, Goreenggai, and some others. Although this is one of the first portions of the colony settled upon by the English people, nothing has hitherto been done to obtain a comprehensive account of the initiation ceremonies of the native tribes

who were originally spread over it.

The disappearance of the aborigines before the white race has been so rapid that unless steps be taken without delay to collect authentic records of their customs, it will soon become impossible to obtain any reliable information respecting them. The object of the present paper is to furnish a detailed description of the ceremonies of initiation as they were formerly carried out, and are still practised by a few remnants of the tribes within the districts mentioned. The information contained in the following pages is entirely new, and is now

published for the first time.

The Main Camp and Keeparra Ground.—The last Keeparra held on the Manning River took place in the winter of 1889, on a part of the Australian Agricultural Company's Grant of 464,640 acres, in the county of Gloucester, New South Wales. The site chosen for the general encampment was a short distance from the right bank of Stony Creek, a small stream which flows north-easterly into the Manning River. This Keeparra ground is about three-quarters of a mile up Stony Creek, from the crossing-place over that creek of the public road from Tinonee to George Town. This road passes through the north-eastern corner of the Grant above mentioned, and crosses the Manning River about 30 chains above the confluence therewith of Charity Creek, which flows in on the northern side of the river.

The Kackaroo, or public ring, was 130 yards S. 50° E. from the right bank of Stony Creek on some level, thickly wooded country. The tribes who attended the ceremony camped around this ring, each tribe occupying the side nearest their own districts. Water for camp use was obtained from the creek referred to, and there were good hunting grounds all around.

The kackaroo consisted of an oval space 28 feet in the longest diameter by 23 feet across, bounded by a raised earthen embankment or wall, which was formerly about a foot high—the base of the wall being about 18 inches through. In one side of this embankment an opening, 3 feet wide, was left, from which a narrow pathway, yuppang, led away through the forest in a direction bearing S. 40° W. for a distance of 370 yards to another and larger oval enclosure, called the yoonambang (excrement place). This space was 31 feet by 26 feet, and was enclosed by an earthern wall similar to the one near the camp, and the path entered it through an opening left in its wall in

the same way. The longest diameter of both these ovals was in the direction of the pathway connecting them, and the embankment was continued a few feet outwards along each side of the pathway in both cases. In the middle of the second, or larger, enclosed space was a heap of earth about 4 feet in diameter at the base, and 18 inches high, on top of which a fire had been kept burning. Plate, XXXII, Figs. 1 and 2.

There were no figures of men, animals, or other devices, formed by heaping up the loose earth, or by cutting an outline in the surface of the soil, contiguous to the path connecting the ovals, similar to those seen on the Bora and Burbung grounds of the Kamilaroi and Wiradthuri tribes, whose initiation cere-

monies are described by me elsewhere.1

A number of trees were marked around the goonambang, some of them being just outside the embankment, and others nearly two chains distant from it. The devices upon them consisted of the curious marking called dharrook or dharroong by the natives, and were cut upon the bark only. The trees selected were grey gum and spotted gum, the bark of which are smooth and soft, and well suited for the purpose. The dharroong extended from near the butts of the trees to an altitude varying from 6 feet to 22 feet up the bole or trunk. Most of the trees were marked all round the trunk, but some were ornamented only on the side facing the goonambang.

On an iron bark tree, the only one of that species marked on this Keeparra ground, was the representation of an iguana (Fig. 9), 4 feet 2 inches long, and 9 inches across the widest part of the body—the legs being about 5 inches in length, and were without claws. The head is turned to the left, as if the animal were looking about. This drawing was outlined in the

bark by means of a nick cut with a tomahawk.

There were twenty other marked trees, all grey and spotted gums, seven of the most representative of which are shown in Figs. 6, 7, 8, 10 to 13, of Plate XXXII. The carving of the pattern shown in Fig. 13, covered 21 feet 8 inches of the bole of the tree, commencing at 3 or 4 inches from the ground, making a total height from the surface of the ground of about 22 feet. The marking shown in Figs. 6 and 10 extended up the trunks of the trees about 15 feet. The dharrook on all these trees was cut into the bark with a tomahawk, but did not extend to the wood.

It will perhaps be interesting to describe another keeparra ground visited by me, which is situated between three and four

 <sup>1 &</sup>quot;Journ. Anthrop. Inst.," xxiv, 411-427: op. cit., xxv, 295-339; "American Anthropologist," ix, 33-49; "Journ. Roy. Soc. N.S. Wales," xxviii, 98-129; "Proc. Roy. Soc. Victoria," ix (N.S.), 137-173.

miles north-easterly from the village of Gresford, New South Wales. The main camp of the natives who were present at the ceremonies was pitched in an open forest, on some gently sloping ground a few chains easterly from the left bank of a small watercourse, a tributary of the Allyn River, within Portion No. 55, of 2,000 acres, in the parish of Lewinsbrook, county of Durham. The local Allyn River tribe were the first to erect their camp, around which the other tribes took up their positions, each in the direction of the country from which

they had come.

Close to the eastern side of the general encampment was the kackaroo, 40 feet by 29 feet, from which the yuppang or path led away on a bearing of N. 85° E., ascending some sloping ground for a distance of 17 chains to the goonambang, on the crest of a low ridge. The diameters of this oval space were 28 feet and 20 feet respectively, being smaller than the oval near the camp. The usual heap of earth on which the fire is kept burning was in the centre of this enclosure. There were formerly several marked trees, around the goonambang, but they have all been burnt down and destroyed by bush fires. At a distance of about 7 chains in a north-north-westerly direction from the goonambang, along the top of the ridge, were a few other marked trees, the dharroong on some of which are still distinguishable. I copied these marks,

but have not reproduced them in the present paper.

Mustering the Tribes.—When it is found that there are a sufficient number of boys old enough for initiation, the headman of the tribe whose turn it is to call the community together, who may be called the "Chief Initiator," sends out messengers to all the neighbouring tribes whom it is desired shall be present. The headman does not take this step on his own responsibility, but after due consultation with the elders of his tribe. When one of these messengers arrives at the camp of the tribe he has been directed to summon, he sits down in sight of the men's quarters, and some of them go over to him, knowing by his manner that he is the bearer of news to their tribe. They would treat him hospitably, and talk with him about general matters of tribal interest. On the following morning he would accompany the men to the weeng'garah', or meeting place where they assemble to discuss all such matters as they do not wish the women or uninitiated youths to take On reaching the weenggarah, which would be only a short distance from the camp, the messenger would tell the headman and elders the purport of his mission, and would

<sup>&</sup>lt;sup>1</sup> The messenger generally has another man with him when engaged on this duty, to keep him company.

hand them a white quartz crystal which had been given to him by the chief initiator when dispatching him on this errand.

If these people, after deliberation among themselves, decide to accept the invitation, they give the messenger another white stone to be carried back to the headman who sent him. The latter, on receiving this token of their concurrence, then selects a suitable plan in some part of his own territory where game is sufficiently plentiful to afford food for his visitors, and there he commences to prepare the ground. If, on the contrary, the tribe to whom the white stone was sent consider the time inopportune, or that there are other weighty reasons for postponing the general gathering, no white stone is returned by the messenger, and the initiator then knows that they do not approve of his proposal, and the matter lapses for the

present.

Assuming that the invitation has been accepted, the initiator immediately commences to prepare the keeparra ground, and dispatches another set of messengers, each of whom are on this occasion provided with a bull-roarer (goonandhakeea), several tails or kilts, a belt, and other articles. Each messenger on arriving at his destination would be received in the manner already described, and would hand the bull-roarer to the headman, who would take charge of it, and the tails would be distributed to the men to whom they had been sent. Nothing would be said to the women about these proceedings until the time arrived for making a start for the place of meeting. One of the men would then sound a bull-roater just after dark in the vicinity of the camp, and next morning every one would pack up and proceed by easy stages towards the appointed tryst, dances and songs being indulged in at night at each of the stages along their route. At these camping places, one of the men swings the bull-roarer in the adjacent forest just after dark, and again a little before daylight, and the women reply to it by beating on their rugs, and singing; the men give a shout in unison.

When such a contingent gets within about a day's journey of the main camp, a messenger is sent on to report that they will arrive next day or the day following. When they get near the camp, the men, women and children sit down a short distance out of sight of the goonambang. The men then paint themselves with white stripes on their chests, on their arms, and on their legs from the knee down. When this painting is completed, two of the men go ahead by themselves, each of them carrying one or two boomerangs in his belt and one in his hand; in the other hand he carries a small bough ready for use by and bye.

The men belonging to the local tribe—and other mobs, if any, who have arrived previously-who may be called the "hosts." repair from the main camp to the goonambang and sit down within it, having their faces turned in the direction of the camp. When these two men get close to the goonambang they gently hit the boomerangs which they carry in their hands against those in their belts, and the hosts answer, huh! Then they advance a few paces, and stamp one foot on the ground, and the hosts answer heh! This beating of boomerangs and stamping is repeated till the men get quite close to the back of the goonambang. The two men now separate, one going round one side, and one round the other, and again meet at the entrance of the goonambang, where they stand and dance, shaking their boughs and boomerangs for a brief period. They then throw down the boughs, and go away back to their comrades, who have remained at the place where they painted themselves, and all of them now approach the goonambang, lightly tapping their boomerangs together as they walk along, and on arriving at the ring they form a circle round it.

The hosts now get up and go outside, where they remain standing in a group, and one or more of their number commence sounding the goonandhakeea or bull-roarer. The women at the camp, on hearing this, assemble at the kackaroo, and begin to sing and beat their rugs, and some of them dance. The women belonging to the new mob also started from where they had been sitting down, as soon as their men started for the goonambang, and proceeded direct to the main camp, where

they joined the women of the hosts.

As soon as the bull-roarers commenced to sound, the men of the new mob entered the goonambang, and walked round, and then started towards the kackaroo in a meandering line, in single file, carrying their boomerangs and other weapons with them. They were immediately followed by the hosts, each of whom carried green bushes in their hands. On arriving at the circle they walked once round it, and then entered it through the opening in its wall, the women at the same time going out of it by stepping over the embankment at the other end, where they remained as spectators. The men then dance and jump about in the ring, uttering guttural noises, the men of the new mob calling out the names of a few principal camping grounds in the country from which they have come. All the men and women then disperse into the camp, and the strangers commence erecting their quarters. These arrivals generally take place in the afternoon a few hours before sundown.

Daily Performances at the Main Camp.—Every day the men go out hunting, and meet each other in the evening an hour or

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so before sundown at the goonambang. If some of the men have remained in the camp all day, they also will proceed to the goonambang and meet the others there. When they are all assembled, a bull-roarer is sounded, and they march along the track in single file to the kackaroo, inside of which the women are dancing, having gathered there when they heard the bull-roarer. The men then march once round the outside of the circle in the same manner as on the arrival of a tribe, already described. The women then step out of the ring, and stand a few yards from it, where they remain till the conclusion of the performance.

The men now enter the ring and dance round a few times, shouting out the names of remarkable places, after which all

hands walk away to their respective camps.

A level patch of ground in a convenient part of the camp is cleared and made smooth for dancing on. Almost every evening one of the tribes present gets up a corroboree for the amusement of the others. The men of one tribe dance one evening—their women beating time for them; the next night the men and women of another tribe provide the evening's amusement.

Taking away the boys.—On the evening of the day preceding the principal ceremony, all the tribes remove their camps close to the kackaroo, or public ring, where they remain for the Some of the men go to the goonambang and camp night. there, and during the night they swing a bull-roarer at intervals. and the women at the kackaroo beat their rugs and sing in response, whilst the men give the customary shout. At daybreak the following morning a number of the men who have been camping with the women at the kackaroo proceed to the goonambang, tapping their boomerangs together as they walk, and join the other men who were there all night. All the men at the goonambang then start towards the kackaroo in single file, marching in a meandering course, and shouting as they go. On reaching the circle, they march once round the outside of it, and then enter it through the opening in the embankment, and continue marching round until all of them are within the ring. They now jump and dance, forming a group in the centre, after which they step out of it, and all the people go and have their breakfast.

After the morning meal has been disposed of, all the young men, accompanied by some of the old fellows, again start away to the goonambang, carrying their spears and other weapons with them, and commence painting their bodies jet black with powdered charcoal and grease. The chiefs and other old men remain with the women at the kackaroo, and preparations for the ceremony are at once commenced. The relatives of the novices now take them to some convenient place adjacent, and paint them all over with red ochre and grease. Some sheets of bark are now laid on the ground just inside the boundary of the back part of the ring, or, in other words, on that side of it which is farthest from the pathway leading to the goonambang. Leaves are then thickly strewn on this bark, forming a kind of couch, and when the painting of the novices is completed, they are led into the ring and placed sitting down in a row on the couch of leaves—the novices belonging to each tribe being put in a group by themselves on that side of the ring which faces their own country. The headmen now ask the women to come up close, and the mother of each boy sits on the ground just outside the ring near her son1; his sisters and relatives are a little farther off, and the other women and children outside of the last named. If the earth is damp, owing to recent rains, pieces of bark stripped from the adjacent trees, or heaps of bushes, are laid on the ground for the women to lie on. The mothers of the novices are painted with red and white stripes on the face, chest and arms.

The principal headman then walks along the row of novices. bending down the head of each one until his chin is resting on The women and children are also told to lie down, his breast. and are covered over with rugs and bushes, some of the men running round amongst them to see that this formality is properly carried out. As soon as the mothers are covered over, they are directed to continue making a low humming or buzzing sound, in order that they may not hear the guardians taking While the covering is being placed over away the novices. the women, a man runs away to the goonambang and tells the men there that everything is ready. These men, armed with their boomerangs and nulla-nullas, then start towards the kackaroo, some of them taking up their position on one side of the ring, and some on the other, but the majority of them stand near the front of it—that is, on the side from which the path emerges. The headmen are walking about directing the proceedings, being sometimes in the ring, and sometimes outside of it. All these operations are carried out as speedily as practicable, so as not to keep the women—some of whom have infants at their breasts-any longer under such rigorous concealment than is necessary.

The men who have been assigned as guardians to the novices now step forward, and catching them by the arm, help them to their feet, and lead them noiselessly away along the pathway

<sup>&</sup>lt;sup>1</sup> If a boy's mother is dead, or too ill to be present, one of his mother's sisters takes her place at the ring.

towards the goonambang, their heads remaining bent down as When the novices have got about 50 or 100 they walk along. yards from the kackaroo, two men who were in readiness, one on each side of the ring, commence loudly sounding their bull-roarers. All the armed men who are standing round, make a noise by beating together two boomerangs, or any two weapons which they may happen to have with them. This noise is made so that if the string of one of the bull-roarers should break -which sometimes happens—the women would not hear it falling on the ground. One of the men goes into the ring. swinging his bull-roarer, and the other walks along one side This only lasts a few minutes and then near the women. all the men follow after the novices. While this tumultuous noise is going on, the guardians say to each other that they suppose Goign is killing all the women and children in the camp. This puts the novices in a great state of anxiety and alarm, but they are not allowed to speak or gaze about them.

The novices are conducted along the pathway to the goonambang, and are placed sitting down on a couch of small bushes and leaves which have been prepared for them, between the fire and the embankment bounding the ring, their guardians sitting down behind them in such a way that each boy may be said to be sitting in a man's lap. The boys of each tribe sit on the side of the ring nearest the country they have come from.

The Kweealbang Camp.—A short digression will now be made for the purpose of describing how the women are released from their prostrate position, and their subsequent proceedings. As soon as the guardians, novices, and the contingent who follow them are out of sight of the kackaroo, the covering is taken off the women by the men who have charge of them, and they are permitted to rise. First, the mothers of the boys are set freethen the sisters—and lastly, the other women and children are uncovered. The mothers and sisters of the novices generally give vent to tears and lamentations when they find the boys and all the men gone away; and such of the young girls and boys who have never been to a keeparra before, appear to have been very much scared by the strange ordeal through which they have just passed. They immediately pack up all their movables, and start away some distance to another locality which has been previously decided upon by the headmen of the several tribes, and there they erect a new camp, being assisted in this work by some of the old men who have been directed to remain with them. The usual rule of each tribe camping round the local mob, each in the direction of their respective districts, is observed in the erection of this new camp.

The mother of each novice, before leaving the kackaroo, picks some small green bushes, which she ties on the top end of her When these leaves get dry, it will be considered about time to bring the boys back to the kweealbang. The sisters of the novices each pick up a piece of burning bark from a fire close by the ring, where they have been smouldering ready for use. These fire-brands, renewed as often as necessary, must be carried by them, when going from place to place, till

they again meet their brothers at the kweealbang.

Before finally quitting the main camp, a small sapling is cut down, and one end of it inserted firmly in the ground at the kackaroo, in a slanting position, the elevated end pointing in the direction of the new camp. If it is intended to erect the camp only a little way off, the pole is short; but if the new camp is some distance away, the pole is long. The upper end of this pole is ornamented by having a bunch of green leaves or grass tied around it. This pointer is left for the purpose of guiding to the kweealbang camp any tribe which is expected, but has not yet arrived.

In the proximity of the new camp, on the side of it nearest the place to which the novices will be taken by the headmen, a piece of tolerably level ground is selected, and cleared of all timber and loose rubbish, and a large fire kindled in the middle of it. This cleared space and its adjuncts is called kweealbang (fire place, or place of the fire). Here the mothers and sisters of the novices assemble every day for the purpose of singing and dancing, and on these occasions the mothers carry the yamsticks, ornamented with bunches of leaves tied on their

ends, already referred to.

Ceremonies in the Bush.—As before stated, the novices are taken to the goonambang (excrement place), where they remain till the women and children have departed from the other circle, which would occupy half an hour, or perhaps longer. During this time some old men perform feats of jugglery, and exhibit white stones (quartz crystals) to the novices. These stones are raked out of the heap of earth and ashes in the middle of the ring, and are warm, owing to the fire which is burning on top of the heap. These quartz crystals are believed to be the excrement of Goign.

The novices are then helped to their feet, and are taken to each of the marked trees in succession. The men stoop down, and clear away with their hands all leaves and rubbish from the surface of the ground around each tree, and the novices are brought to this clear space, with their heads bowed, and are told to look up at the marks on the tree. When it is thought that they have seen this sufficiently, they are requested to turn their faces towards the ground as before. There is a cleared path from one marked tree to another, and the boys are taken along this path to the next tree, when the same formality of clearing a space around its base is gone through, and the boys are again directed to look up. When the men are approaching each tree they throw pieces of stick at it, and dance round it on the clear space referred to, rubbing their hands upon the tree and telling the boys to take particular notice of the marks upon it. The men make a guttural noise as the novices are shown

each tree, and also in going from one tree to another.

After the novices have been shown the goonambang, and all the marked trees around it, they are next taken away by their guardians and the old men, several miles into the bush, to a camp called *keelaybang* (urinating place). During the journey thither the novices are not allowed to gaze about them, but have to keep their eyes cast upon the ground at their feet, and their hands held on their stomachs, as they walk along with their guardians. The headmen and young fellows who accompany them, are also a little way behind the novices, shouting

and making a great noise as they march along.

At the keelaybang a camp is formed by erecting a long, continuous gunyah or mia-mia in the following manner. (Fig. 3, Plate XXXII.) A row of wooden forks, about 4 or 5 feet high, are first inserted in the ground, and saplings laid from fork to fork, resembling a fence with only one top rail. All along one side of this top rail, reaching from it to the ground, bark and bushes are placed in a slanting position, forming a shelter, covered in on one side, leaving the other side open. Under the open side leaves are thickly strewn on the ground, for the men and boys to lie upon. The back of this shelter is towards the women's camp. A row of fires are lit in front of this shelter, and beyond these fires the surface of the ground is cleared of all loose rubbish and grass for a distance of several yards, the rubbish forming a sort of embankment around the farther side of the cleared space. Such a camp would be formed on some tolerably level ground near a running stream or water-hole.

When the camp at the keelaybang has been completed the novices are placed lying down in a row on the leaves which have been spread on the ground under the shelter, and are covered over with rugs, each boy having his guardian beside him. The novices and guardians occupy a central position, and the rest of the men camp under the remainder of the shelter, in both directions. During the day-time the novices are sometimes allowed to sit up, keeping their eyes towards the ground, but are not allowed to speak to anyone. If a boy wants anything

he must touch his guardian, who then commences asking him the most likely things, until he guesses correctly, when the boy nods assent. If he wants to micturate, the guardian leads him out to the fire, and he micturates in the ashes.

On the first night of the arrival of the novices at the keelaybang, some human excrement is given to them as they sit in the camp. It is laid on pieces of bark, and each boy has to eat the share which is allotted to him by the headmen. At this camp they are also required, on more than one occasion, to drink the urine of some of the men, collected in a coolamin for the purpose. During the celebration of these rites, a bull-roarer is sounded in

the neighbouring forest.

At this camp there are pantomimic performances nearly every night, the men dancing and acting on the clear space already described. Sometimes the animal imitated is the kangaroothe men hopping along one after the other. The iguana is also represented by the men crawling along on the ground, moving their hands and feet like that animal. At other times the soldier bird is imitated; sometimes the flying fox, the native bear, the rock wallaby, the wombat, and other animals. These performances are generally carried on at night by the light of the row of camp fires—the novices sitting in the shelter, while the men are acting on the other side of the fire. Some of the performances are, however, enacted during the day, after the men return from hunting. All these pantomimic representations are largely mixed with abominable and obscene gestures. After the dances and games are over, one of the men sometimes sounds a goonandhakeea (excrement-eater) in the bush near the camp. The guardians or some of the other men then shout out, as if addressing some one, "The boys are here yet! Don't interfere with them!" The novices are told that the noise they hear is the voice of Goign, who would come and eat them if he got the chance.

During the early part of each day, the men go out hunting, and bring home the results of the chase, consisting of kangaroos, iguanas, birds, and other game, as well as wild honey. The novices are not allowed to leave the camp, but must sit in the shelter all day with their eyes cast down, some of their guardians remaining with them. Some of the game caught during the day is cooked for the novices, the bones and sinews being taken out of it, and the pieces cut small, so that they may not be able to distinguish what animal's flesh is being given to them. Some of the old men go round to see that the food for the novices is prepared according to rule, and when it

is ready the guardians carry it to them.

One or more of the tribes who intended to be present may

have been unavoidably detained on the way, and do not reach the main camp until a few days after the novices have been taken away. Such a tribe, on reaching the main camping place, and finding all the people gone away, would go to the kackaroo, and on seeing the index pole would start away in that direction, and join the other people at the new camp, and take up their quarters on the side nearest their own country. The young fellows belonging to these new arrivals are always eager to be present and assist at the performances at the keelaybang, and accordingly they start out to the camp in the bush. On the way they paint their bodies with powdered charcoal, obtained by burning the bark of the apple tree or

bloodwood, and mixing it with grease.

These men, who are called keerang (bushes), approach the keelaybang in single file, each man holding a green bush in front of him, which hides his face and body as far as the waist. and as they walk along they make a shrill sound resembling the howling of the dingo, or wild dog. On hearing this noise, the guardians and other men present say to each other, "That must be Thoorkook's dogs coming to kill the boys; let us cut steps in the trees near us so that the boys can climb up out of their way." A few of the men at the back of the keelaybang commence chopping at a tree, and the boys are helped to their feet, and are put standing in a row near the fires, each boy being supported by his guardian. By this time the keerang have reached the clear space at the keelaybang, where they throw down their bushes and spread out in a line in front of the novices, and jump about, swaying their arms, after which they retire to one end of the camp. The other men then go and pick up the bushes thrown down by the keerang, and pull the leaves off them, making a continuous grunting noise while so employed. The novices are then put back in their former places, and the keerang proceed to erect their quarters, by adding to one end of the same line of forks and bushes already described.

After the novices have been about a week at the keelaybang another mob of men from the women's camp make their appearance during the afternoon. They approach the camp in the same manner, carrying bushes and imitating the native dog, like the previous mob, and the novices are brought out to see them in the same way. The men at the camp pull the leaves off the boughs thrown down by the keerang, who sit down at one end of the clear space. After the formalities of their reception have been gone through, the new arrivals, who are not painted black on this occasion, ask some of the other men to accompany them a little way from the camp, where they

hold a consultation as to the date on which the novices will be taken to the kweealbang. If the course of performances in the bush have been completed, the boys may be returned next day, but if some further instruction is necessary, the date is arranged accordingly. The keerang then take their leave, and return to the kweealbang camp. After this visit of the keerang the novices are allowed greater liberty, being permitted to sit up straight in the camp, and occasionally to stand. Having been lying so long, and sitting with their heads bent down. makes them weak and giddy, so that when they try to stand they stagger like a drunken man, and have to be helped to their feet, as before stated, by their guardians. It is therefore necessary to give them a little relaxation to afford them an opportunity of regaining their strength before attempting the journey to the kweealbang. During the last night of the sojourn at the keelaybang the old men sing Goign's song

while the boys are lying in the camp.

The day after the arrival of the Keerang-or it may be in a few days' time—very early in the morning, perhaps before sunrise, one of the headmen pretends to see a large brown squirrel going into a hole in a tree growing near the camp, and asks one of the men to catch it. The tail of a squirrel or opossum has previously been fastened on the side of this hole by one of the men; unknown to the boys, to convey the idea that the rest of the animal is within. The novices are then brought out and placed standing in a row between the camp and the fires, with their eyes cast down. A man standing at the butt of the tree commences to cut steps as if going to climb it, and a few of the men run about and throw sticks at the squirrel's tail. Others say, "You should not interfere with Goign's squirrel, or he will come and kill both us and the boys." Two bull-roarers are then heard close by, and some of the men call out to those throwing the sticks, "We told you to beware of Goign-here he comes!" This is said to impress the boys with supernatural terror. The bull-roarers increase in loudness, and come quite near, and the guardians tell the novices to raise their heads and look. They then see two men swinging each a goonandhakeea (excrement-eater) on the cleared space beyond the line of fires. The boys are then cautioned by the old men that if ever they tell the women or uninitiated that they have seen this instrument the penalty will be death. The bullroarers are then given into the hands of the novices, who touch their bodies with them.

Return of the Boys.—A start is now made towards the women's camp, all the men and boys leaving the keelaybang in single file. Some distance on the way they hear the keerang

coming to meet them, cooeeing like the dingo as before, and walking in the usual way. The men and boys then change their position, and all march abreast. When the keerang come near, they spread out in a row in front of the men and boys, and throw pieces of bark over them, dancing as they do so. These pieces of bark about 9 inches or a foot long, and 2 or 3 inches wide, are cut off trees or saplings for the purpose. The keerang then march right through the line of men and boys, some going through at one place and some at another, the line When they get to the rear, they turn opening to let them pass. round and again throw pieces of bark over the heads of the men and boys. The latter keep marching on, and the keerang follow them till they arrive at a water-hole or running stream, which has previously been agreed upon as a suitable bathing place. Here a halt is made, and the keerang start away back to the women's camp, and report that the men and boys will arrive in a few hours' time. The women then assemble at the kweealbang fire, and assist the men to cut bark and bushes, which are laid in a ring round the fire ready for use by and bye. The mothers are painted on the chest and arms, and are invested with their personal adornments.

The men and boys who remained at the water-hole or creek in the bush, as soon as the keering left them, proceeded to wash the colouring matter off their bodies. They went into the water-hole one after the other, and came out in the same way. The novices entered the water first, and as each boy plunged in, the men standing around gave a shout. On coming out of the water-hole they paint their bodies white with pipe-clay, which is diluted in water in one or more coolamins which have been cut for the purpose. The men help each other at this work, until every man and boy present have been painted white all over The hair on the heads of the novices is now their bodies. singed, for the purpose of making the women believe that Goign has had them in the fire during their sojourn in the bush. The belt and four tails or kilts are now put upon each boy, as well as head-bands, and bands across the body like shoulder-belts. Strings are bound tightly round the upper arms of the novices to make their muscles swell, which is supposed to cause their arms to grow stronger. The men also decorate themselves in

their full regalia.

The journey towards the kweealbang (fire place) is now resumed, all hands starting away from the water-hole in single file; and on going a short distance they are again met by the keerang, who salute them in the same manner as before, and then return to the kweealbang, and report that the novices will shortly arrive. The keerang and other men who have remained

in the camp then muster up all the women, and place them lying down round the fire, a little way outside the ring of bushes before referred to, the women of each tribe being kept in groups by themselves on the side next their own district, and are covered over with rugs and bushes. The mothers of the boys are on the outside, or farthest from the fire, which is composed of pieces of wood and bark, slowly burning within the circle of green bushes which are laid around it. If the ground is wet and cold, pieces of bark are spread upon it for the women to lie upon. As soon as they are covered over, the women keep up a humming noise the same as they did on the morning the novices were taken away from the kackaroo. A few of the old men remain standing near them, armed with spears, to see that the covering is not interfered with.

One of the keerang now goes and meets the men and novices—who may be distinguished as the "white mob"—who are by this time waiting just out of sight, and tells them that everything is ready. They then march on quickly, and on arriving at the kweealbang they disband, the men and novices belonging to each tribe taking up their position on the side which is in the direction of their country. Their movements are made as noiselessly as possible, so that the women may not hear them coming. All of them then join hands, each man having hold of the hand of the man or boy on his right and on his left, having their faces toward the fire in the centre, and form a complete

circle round the women. Fig. 4, Plate XXXII.

The rugs are now taken off the women, and the mothers are called up first, after which the other women are permitted to Owing to the humming noise which they have themselves been making, and the quiet manner in which the men and boys have come in, such of the younger women who have not been to a keeparra before are surprised to see the cordon of "white men" standing around them. On account of the novices hair being singed short, and the white paint on their bodies, the mothers are sometimes unable to recognise their own sons. old men who are in the ring with the women, therefore, conduct each mother to her son where he is standing holding the hand of the men on each side of him. His mother then approaches him, and holds her breast to his face, pretending to suckle him. The sisters of each boy then go up to him, and rub their feet on his ankles. The mothers then pass out under the arms of the men; then the sisters pass out, and lastly all the other women and the men who had charge of them in the ring, and stand close by as spectators of the remainder of the proceedings. The mothers and other women belonging to each tribe go out of the ring of "white men" on the side next their own country.

pieces of burning bark which the sisters of the novices have been obliged to carry, as before stated, are left at the kweeai-

bang.

Two old men, and two of the elder women, now go inside the ring of men and boys, and walk round—a man and a woman going one way, and the other man and woman going in the contrary direction. The men tap the ends of their boomerangs together as they walk, and the women wave their arms. The "white mob," who are still holding each other's hands, swing their arms up and down as the men and women march round. Having gone round in this manner two or three times, the men and women come out, and the "white mob" keep closing in nearer and nearer the fire—the guardians and novices being in the centre. The bushes which had previously been laid round the fire are now thrown upon it. The novices are then lifted up in the men's arms, two or three men, including the guardian, to each boy, who advance and stand on the green bushes, which by this time are emitting a dense smoke, which ascends round the men and boys. As the neophytes are held up in the smoke, the men raise a guttural shout, and the women wave their arms up and down.

When the boys have been sufficiently smoked, their guardians take them away, and they are followed by the other men for about 100 yards. All the men, except the guardians, now return to the fire and stand on the green bushes in turn, until they have all been smoked. The keerang and other men who remained at the women's camp have been standing by as spectators, directing the proceedings all the time—the principal headmen being among them. When the fumigating of the men and novices has been completed the women go away to their camp, which is close by, and the men proceed to theirs—the married men joining their wives later on. In the meantime the novices, who are now called keeparra, have been taken a short distance from the main camp, where quarters are prepared for

them, and their guardians remain with them.

The next morning the women proceed again to the kweeal-bang and light a fire. The mothers of the novices stand in a row facing the fire, the other women being behind them (Fig. 5, Plate XXXII). Each mother has her yamstick with her, and sticks it into the ground beside her, the top end of it being ornamented with the bunch of bushes which were fastened to it the morning the novices were taken away from the kackaroo. Nets are spread in a line upon the ground, and beside them are some coolamins containing water. When all is ready, some of the old men who are assisting the women give a signal, and the guardians and novices approach the kweealbang. The mothers

wave their yamsticks, and when the men and boys come near, the women shout, and throw pieces of bark over the men's heads. The guardians also throw pieces of bark over the heads of the women. The novices are placed sitting down on the nets, and bend forward and drink water out of the coolamins which are on the ground in front of them. Then the mothers go back to their own quarters, and the novices are taken by their guardians a short distance away, where they make a camp. That night a white stone is given to each neophyte by some of the old men; it is put into a small bag, and is fastened to the boy's girdle. The novices are also forbidden to eat certain kinds of food until relieved from this restriction by the old men.

Conclusion.—The following day, the strange tribes begin to disperse, and start away on their return journey to the districts from which they have come. The local tribe also shift away to another part of their own hunting grounds. Each tribe take their own novices away with them, and put them through the remaining stages of initiation in their own country. This is done in the following manner:-At the end of a certain time of probation, which is fixed by the headmen, the neophytes. painted and dressed as men of the tribe, are brought to a fire near the men's camp, where there is food ready laid on rugs spread upon the ground. All the women are there, and the novices sit down and eat the food which has been prepared for That night they camp in sight of the men's quarters, and each succeeding night they come a little closer, until at last they get right into the single men's camp. From the time the novices left the kweealbang until now they have been compelled to carry pieces of burning bark everywhere they went, but they are now released from carrying the firebrands any more. If any of the boys are very young, they may be required to carry a firestick till their hair grows as long as it was before being singed at the water-hole in the bush, as already described. This is said to be done to cause the novices' hands and arms to grow stronger. The novices are now given a new name, and are permitted to mix with the men, but must not go among the women until they have attended a few more keeparras, and have lost their boyish voice. After they have qualified themselves by passing through all the stages of probation attached to the initiation ceremonies of their tribe, the novices are allowed to take a wife from among those women whom the class laws permit them to marry.

In some parts of the tract of country to which the ceremonies herein described apply, one of the front incisor teeth was formerly extracted during the time the novices were away at the keelaybang, but as this custom is not now enforced anywhere, I have not included it in this paper. From conversations which I have had with very old black fellows, there appear to be some grounds for supposing that the custom was not universally carried out in the districts referred to. I am now making further investigations into this matter, the results of which will be included in a subsequent paper.

Adjoining the north-west corner of the country peopled by the tribes dealt with in this article, is a small community occupying the Tableland of New England, whose initiation ceremonies have been described by me in a paper contributed

to the Royal Society of Victoria.1

#### APPENDIX.

#### The Dhalgai Ceremony.

A short or abridged form of initiation ceremony, called *Dhalgai*, is sometimes adopted by the same tribes who inhabit the tract of country dealt with in this paper. The *Dhalgai* is used only when there is no time, or it is otherwise inconvenient, to hold the complete ceremony of the *Keeparra*. If a tribe has a novice who is old enough to be initiated, and it will be some time yet before another keeparra will be held, it is sometimes thought desirable or politic to inaugurate him into the rank of manhood. No prepared ground is required, nor is it necessary that the neighbouring tribes should be summoned, as is imperative in the case of the keeparra, but each tribe initiate their own boys. The following is a brief outline of the Dhalgai ceremony:

The novice, gooroomin, is taken away some morning from the camp by three or four of the old men, under pretext of going out hunting, and they escort him to a place previously agreed upon among themselves. A number of the other men also start away from the camp in a different direction, so that neither the women nor the novice may suspect anything unusual. When this latter mob get out of sight of the camp, they change their course, and repair to the place which has been fixed upon for the initiation of the boy—probably some well-known water-

hole.

The men who have the novice in charge are the first to reach the appointed locality, and when they get near the water-hole they sit down, and one of them goes on ahead, and lights a fire in a level, open piece of ground. This man then returns to where he left his comrades, and one of them, who is a brother-

<sup>1 &</sup>quot;The Burbung of the New England Tribes, N.S. Wales," "Proc. Roy. Soc. Victoria," ix (N.S.), 120-136.

in-law, actual or potential, of the novice, then bends his head upon his breast, and conducts him to the fire, and places him

sitting down a little way from it.

The other detachment of men, who went away in a different direction, now approach, walking in single file, with a bush in each hand, held up in front of them so that their faces are not visible. These men, who are called yillay, are painted with white stripes on the face, chest and limbs. As they march along, they make a noise like the native dog, and on getting close to the boy, they throw pieces of stick over his head, which fall to the ground just beyond him. He is permitted to raise his head and look at them, and then cast his eyes on the ground as before. They then throw away their bushes, and, spreading out in front of the novice, stoop down and commence scraping the rubbish off the ground with their hands. They keep stepping backwards and scraping, until they have a small space cleared of all leaves and small sticks in front of the novice, who is still sitting on the ground with his head bowed.

The yillay then step into the space which they have thus cleared and commence to jump and dance, and the boy is told to look at them. One of their member then steps out in front of the rest on this cleared space and swings the goonandhakeea, and the novice is raised to his feet and is directed to look. The old men tell him the mysteries connected with the use of the instrument which he now sees before him. They then step up quite close to the novice in a menacing attitude, with their weapons in their hands, and threaten him that if ever he divulges what he has now seen, he will be killed, either by the hands of his own tribesmen, or by supernatural agency. After this ordeal is over, he is allowed to examine the sacred instru-

ment.

All the men then sit down near the fire, the neophyte being amongst them. He is then painted as a man of the tribe, and invested with a complete set of man's attire, and the old men show him quartz crystals and give him advice as to his future The ceremony is now over, and on returning to the conduct. camp that afternoon, the novice remains in the men's quarters, and does not go back to his mother, or his small brothers, or sisters any more. He must, however, keep away from the women's quarters and abstain from eating certain kinds of food during a period to be determined by the headmen. At the next keeparra which is held in the community, the neophyte will be shown all the marked trees, and the secret ceremonies which are enacted at the goonambang, the keelaybang, and all the final proceedings at the women's camp.

A novice who has been admitted to the status of manhood by

means of the Dhalgai ceremony is called a Dhalgai man, in contradistinction to those who have been initiated at the Keeparra, who are always spoken of as Keeparra men.

## Explanation of Plate XXXII.

A brief explanation of the Figures shown on the Plate will now be given—the reader being referred to the text for further details.

Fig. 1 is the Kackaroo, 28 feet by 23 feet: a is a group of two boys; b a group of four boys; c and d groups of three boys each. Outside the embankment are the mothers of the boys, and the other women farther back a', b', c', d', e and f are the men swinging the bull-roarers—one of them having entered the oval. The other men are not shown as it would unnecessarily crowd the Plate.

Fig. 2 represents the Goonambang (Excrement Place), 31-feet by 26 feet, with the heap of earth, e, in the centre. The four groups of boys, a, b, c, and d, are represented sitting between the heap and the embankment, but it has not been thought necessary to show the positions of the men—this having been sufficiently explained in the description of the keeparra ground. The track, yuppang, leading from the goonambang to the kackaroo, is shown by a dotted line in this as well as in Fig. 1.

Fig. 3 represents the *Keelaybang* (Micturating Place), a, b, being the line of gunyahs or shelters, c, c the row of fires, and d the clear space

where the men perform their plays and dances.

Fig. 4 is the Kweealbang (Fire Place), g is the fire in the centre, around which a heap of green bushes, f, are laid; a, b, c, d, are the mothers of the novices, and the other women, lying down, covered over with rugs and bushes; e, e, e, e, is the circle of men and boys painted white, and having their hands joined together; h is the way the men and novices have come in from the bush.

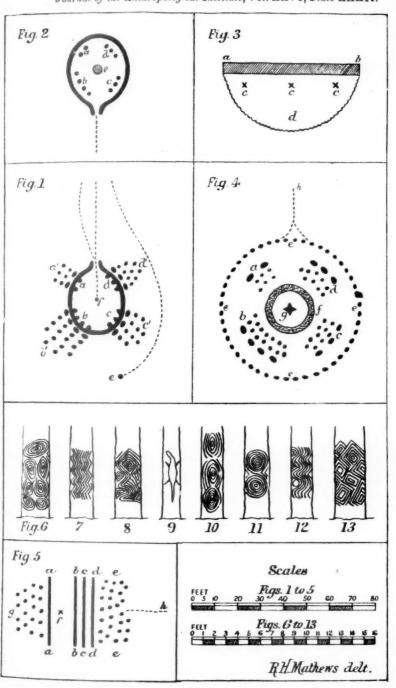
Figs. 6 to 13 represent the dharrook carved upon trees growing around the goonambang, which are fully described in previous pages.

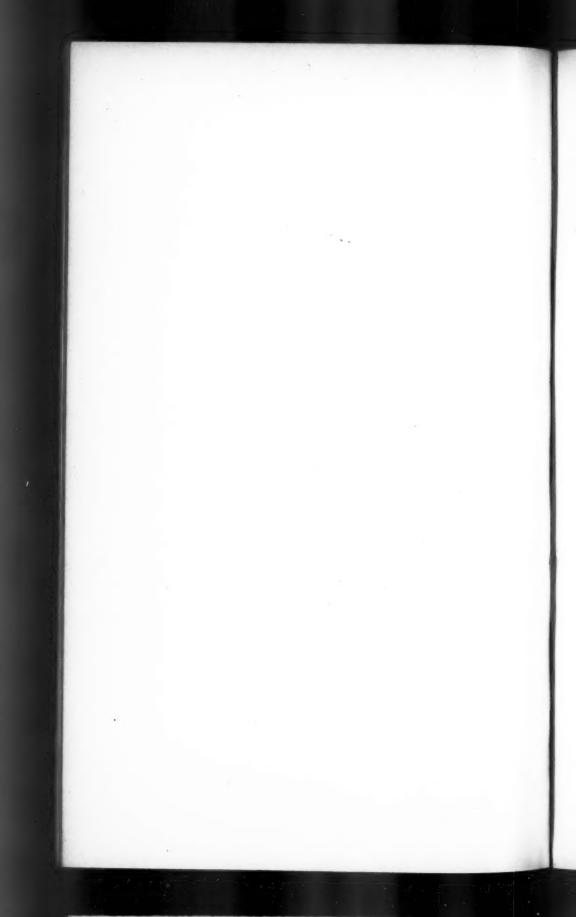
Fig. 5 represents the place where the novices are brought in, and are given a drink of water; a, a, are the mothers standing in a row at the fire, f,—the other women, g, being behind them. On the other side of the fire is a row of coolamins, b, b, containing water: c, c, is the row of novices, and d, d, are the guardians; e, e, are the other men present; and h is the direction from which they have just come.

LIFE HISTORY of an AGHORI FAKIR; with Exhibition of the Human Skull used by him as a Drinking Vessel, and Notes on the similar use of Skulls by other Races. By Henry Balfour, M.A.

#### [WITH PLATES XXXIII-XXXIV.]

Being anxious to obtain for the Pitt Rivers Museum a specimen of the human calvaria used as a drinking vessel by Aghori Fakirs in India, I wrote to Surgeon Captain H. E. Drake Brockman, I.M.S., asking him to try and obtain one for me. This he not only succeeded in doing, having obtained





the specimen which I am exhibiting, but he also very kindly obtained all the information which he could regarding the Aghori who owned and used this skull as his drinking bowl. As this information is of considerable interest, and as I am not aware that the individual history of an Aghori has before been published, I thought that it would be of interest to the members of the Institute if I were to bring these notes before them. The personal history of its former owner, lends interest to the skull bowl as a specimen, and any reliable information regarding the very peculiar sect of ascetics known as the Aghori must be of value, especially since it appears that their numbers are diminishing, and their unpleasantly peculiar customs seem likely to die out at no very remote period. The interests of culture demand the suppression of such aggressively ascetic doctrines, but the interests of anthropology demand that they should be thoroughly investigated and studied before it is too late.

On the general subject of the Aghori Fakir of India, Dr. Drake

Brockman supplies the following notes:—

"The Aghori is a class of Hindu Fakir rarely seen now-a-days, and fast becoming extinct, who wander about the length and breadth of India, either singly or in pairs, and will often eat offal and filth of every description, including the flesh of dead animals, human and other excreta, and often human flesh when obtainable. As far as I can ascertain from inquiry from pundits and others at the sacred places, this class of Hindu Fakir takes its origin from the so-called Gorakpunt Fakirs, the originator of their sect being one Gorak Nath, at some remote date.

"The sect, as stated by the fakir Moti Nath, from whom the drinking vessel sent was obtained, appears to be sub-divided into three sections, viz.: 1, Oghar; 2, Sarbhunji; 3, Ghure. There appears to be little difference between these three sections, as they can eat together and intermarry, thereby violating the two most stringent conditions of caste etiquette. The members of this sect wear only ear-rings, no other adornment being allowed. They all appear to change their names when admitted into the sect, and take those allotted to them at the time of admission by the respective gurus, at whose hands they have been initiated into the sect.

"It is very difficult to obtain much reliable information concerning this sect of religious mendicants, partly from the fact that their numbers now are few, that they are scattered in twos and threes all over India, and that they are more or less looked down upon and despised by the people, who simply

feed them at festivals as an ordinary act of charity.

"Their religious rites and beliefs are somewhat curious, in that, as regards admission to their fraternity, a member of any VOL XXVI. 2 A

religion or creed, be he Christian, Mussulman or Hindu, is eligible for admission to the sect, and the only thing necessary is that each must become a *chela* (disciple) of a *guru*, prior to their formal admission, for a period of six months at least.

"From inquiry of an intelligent pundit of Hurdwar, who, I have every reason to believe, is reliable, in that this place is one of the few resorts of this particular class of mendicants it appears that the term Oghar is applied chiefly to those members of the sect who have previously been Mohammedans, but is not absolutely restricted. It also appears that the name of Oghar is derived from the founder of the section that goes by this name, a certain Oghar Nath. Members of this sect of Aghori Fakir do not appear to eat offal to the extent that the other two sects do. the Sarbhunji and Ghure; the habits of these latter are said to be of the filthiest possible description; they stick at nothing, and will eagerly devour human flesh, human or other excreta, and drink urine. One curious fact is that they can and will eat the flesh of any dead animal with one exception, that is the horse; the exact reason of this, which I have often tried to elicit from pundits, I have been unable to ascertain.1

"Phakkars do not eat human flesh, and are probably looked up to by the other members of this sect, as being a bit better than themselves, partly from this reason, but also from the fact that they are celibate, or at any rate are not supposed to marry.

"While at Hurdwar recently, I was able to procure a stick used and carried by this fakir; it is cut from a tree known by the name of 'Tejphul,' a fairly common one, whose bark is covered with thorns something like the ordinary rose tree bark, only more pronounced in the way of being covered with thorns. I was told that two of these fakirs lived on the opposite side of the Ganges, in some caves in the hills surrounding Hurdwar, and that occasionally they could be seen wandering along the banks at dusk in search of offal, etc., but that on being approached they at once bolted into the jungle and could not be tracked. I tried to get some information concerning them and to procure their drinking vessels, but, I regret to say, without avail."

As Barth ("Religions of India," p. 214, 1892) says, "From the outset, and more than any other Hindu religion, Çivaism has pandered to ascetic fanaticism." The Aghori form perhaps the lowest grade of the Sivaite sects. From Watson and Kaye and others, we learn that while formerly numerous, this sect of devotees has now dwindled down to a very few members, and

<sup>1</sup> Is this connected with the idea, prevalent in India, that the horse is a luck-bringing animal, and that it is unlucky to eat its flesh? Crooke (Introduction to "Popular Religion and Folklore of N. India," p. 318) says, "Eating horse flesh is supposed to bring on cramp, and when a sepoy at rifle practice misses the target, his comrades taunt him with having eaten the unlucky meat."—H. B.

2 Watson and Kaye, "Peoples of India," II, pl. 94; E. Balfour, "Cyclopedia

that as an organised institution it is well-nigh extinct. Although there are doubtless many sincere devotees, the cult would seem largely to be maintained as a form of imposture, savouring of hypocritical charlatanism, "the object being to excite the wonder of the beholders, and make them believe in the utter indifference of the Aghora to worldly enjoyments. . . . They go about nude, with a fresh human skull in their hands, of which they had previously eaten the putrid flesh, and afterwards scraped out the brain and eyes with their fingers, into which is poured whatsoever is given them to drink, and to this they pretend to be indifferent whether it be ardent spirits or water. . . . The Aghora is an object of terror and disgust. Hindus, however, look on these wretches with veneration, and none dare to drive them from their doors" (E. Balfour, quoting Watson and Kave). Wilkins says that "the original Aghori-worship seems to have been devoted to the female powers, or Devi, in one of her many forms, and to have demanded human victims."1

The accounts of this sect which I have seen are very meagre,2 and, in the scarcity of details concerning its votaries, the account of an individual Aghori, the owner of the skull-bowl exhibited, should prove of interest. I give the account as sent to me by Dr. Drake Brockman, who had it from the man's own lips. He says:

"The accompanying drinking vessel (Fig. 1), which on inspection will be seen to consist of the complete vault of a human skull, comprising the frontal, two parietal, and occipital bones, was obtained by me directly from one of these fakirs, after many months of search, and, in order to lend additional interest to it as an ethnological curiosity, I had the man's history taken down at the time, together with a few interesting points regarding this kind of ascetic, which were elicited from him by questioning. I will now proceed to give it in detail. He stated: 'My name was Kallu Singh, father's name Fateh Singh, caste Lohar (a of India"; Wilkins, "Modern Hinduism," 1887, p. 89; M. A. Sherring, "Hindu Tribes and Castes," 1872, p. 269.

1 E. W. Hopkins, "Religions of India," 1896, p. 490, says: "Aghori and all female monsters naturally associate with Çiva, who is their intellectual and moral counterpart. The older Aghoris exacted human sacrifice in honour of Devi, Parvati, the wife of Çiva," and in a note on p. 533: "It is from this tribe [the Bhils] that the worship of Aghori, the Vindhya fiend, accepted as a form of Kali, was introduced into Civaite worship."

The versatile consort of Siva is known under a great variety of names and

characters, Devi, Parvati, Durga, Kali, Uma, etc.

The best account which I have seen is that by Mr. H. W. Barrow, "On Aghoris and Aghoripanthis," published in the "Journ. Anthrop. Soc. of Bombay," vol. iii, 1893, pp. 197-251, to which I was referred by Prof. Tylor. This account is exceedingly interesting, and gives numerous references to other literature. The description relating to initiation ceremonies is important. It appears from this paper that the Aghorapanthis should be regarded as modern degenerate representatives of the earlier Aghoris. The paper was compiled from MS. Notes on the "Aghoris and Cannibalism in India," by the late Mr. Edward Tyrreil Leith.

worker in iron), by calling a saigulgar (meaning a polisher or burnisher), a resident in Patiala city (capital of a large native

state in the Punjab), and my age is thirty years."

On being asked when and how he came into the sect in which he was, he replied, "My mother died when I was six months old, my father brought me up. When I was twelve years of age my father died. I had no next-of-kin, and then stayed in the city of Patiala for some time, and maintained myself by begging, but, when the people of my caste began to jeer at me, I left the place and came begging to Mauza (meaning a village) Shajjadpur Majra, which is in British territory, between Patiala and Umballa, and about 20 kos¹ from Patiala to the north. There my relations lived, but they would not keep me; then I departed from there, and came to a village, the name of which I have forgotten, about three kos from Mauza Shajjadpur Majra. In this village there were ten or twelve houses occupied by Oghar and Sarbhunji people.

"In this place one Oghar made me his chela (disciple), but first of all the inquired into my affairs, and I told them that I had no waris (next-of-kin), and I asked them to make me one of their sect; they then kept me with them. For six months I stayed with them in that place, and bagged along with them, and supported myself. They had other disciples, and when six months had passed, the other disciples spoke on my behalf, and the other Oghars then made me one of their sect, it having been represented that I had been with them six months. The Guru (spiritual guide) then granted me mantra (spell or charm).

"After admission to their sect, I stayed with them for six years, after which, with their permission, I started on a pilgrimage to Badri Narain (this is a sacred shrine up in the hills above Hurdwar, at a considerable elevation, to which pious Hindus resort), en route to which I met many of my brotherhood, i.e., Oghar and Sarbhunji mendicants, and in their company, after a month and a half arrived at the Badri Narain mountain. For some years I lived by begging at the foot of the mountain.<sup>2</sup>

"There were no houses of my biradari (fraternity) there, and I met no one whom I knew. Thence I started off for Nepal, and in due time arrived in Nepal Kas city (meaning Khatmandu), where I stayed for six months. While there I received sada barat<sup>3</sup> from the Rajah's palace. A good number of Oghars live

<sup>&</sup>lt;sup>1</sup> The kos is a measure of distance varying considerably in different parts of the country, but usually measuring about two English miles.—(H. E. D. B.)

<sup>&</sup>lt;sup>2</sup> This point is infested with fukirs and mendicants of all kinds, who wait to catch pious Hindus and charitably disposed persons going up, for money.—(H. E. D. B.)

<sup>&</sup>lt;sup>3</sup> This is a term applied to the custon of giving food daily as charity to the poor, which is largely done by wealthy Hindus, especially in large cities, e.g., Muttra, where I have often witnessed this custom with my own eyes, and anyone

in Nepal territory, and I used to associate with them there. Thence I started on a pilgrimage to Juggarnathji (the sacred place of pilgrimage in Orissa), where I stayed for about eight or ten years. I met only a few Oghars there. Thence I started on a pilgrimage to Mathura, after which I came on to Bhurtpore" (a native state in Rajputana, where I got hold of the man. H. E. D. B.), "where I have been staying the last fifteen days.

"My guru's name is Hira Nath, and when I was admitted into this sect, he granted me the name of Moti Nath, by which name I am always known, and now I am an Oghar. I now receive food from every caste and tribe, and have no caste prejudices, I can eat from everyone's hand. I do not myself eat human flesh, but some of my sect have the power to eat human flesh and then make it alive again; some have success with charms, and they eat the flesh of the human body, but I have not this power as I was not successful with the charms. This much I do, I eat and drink out of a human skull. I also eat the flesh of every dead animal, with the exception of the horse, which we are forbidden to devour; all my brotherhood eat the bodies of all dead animals but the horse; this sect also eats the food of every caste or tribe, and has no caste prejudices whatever.

"There are three branches of my sect, 1, Oghar; 2, Sarbhunji; 3, Ghure. These all eat together and can marry with each other; those of our sect have families, but some of them are *Phakkars* (bachelors). *Phakkars* do not marry at all. We three sects can eat with *mehtars* (sweeper caste), but never intermarry with them. The three sects mentioned intermarry with each other, but not outside. We respect *Phakkars*, and put great faith in

them. Phakkars are allowed to celebrate marriages.

"For the marriage rites,—first, the day of the wedding is fixed, and then on the appointed day the Guru, assisted by a Phakkar (if available), reads some charms and incantations before the bride and bridegroom, and then the marriage becomes complete; no other ceremonies are performed. Then the father or guardian of the bride gives the bridegroom some cloth, a dead human skull, and a rod." (This is a piece of rough stick, taken from a tree fairly common out here, called "tejphul," the bark of which is covered with blunt thorns. I have obtained a specimen of it, one that has been the property of one of these ascetics. H. E. D. B.) "We can have admitted to our sect anyone from any caste or religion, whether Mohammedan, Hindu or Christian, high or low. When he, or she, joins our sect, and wishes to marry, he can do so into either of the three sects of our fraternity. In our sect family men can also make disciples. We believe in God and our Guru, but in no other deities; we can see at the door of a rich Rais' house food being distributed to the poor, irrespective of caste and creed.—(H. E. D. B.)

all believe alike. My guru has not the power of making a dead human body alive after he has eaten it up, but my guru's guru had that power, he could do many other miracles. I personally

never saw him, but have only heard of him."

That then is the account which this Aghori gave of himself and his sect, a description having many points of interest. In the case of such an outcast, one may say out-caste, people it is a matter of great difficulty to hold communication with any of them, with the view of learning about their habits and history, as they studiously avoid contact with those not of their own persuasion, except for the purpose of soliciting alms from the charitably disposed, or of extorting them by threats of horrible practices. A belief in the strict fundamental equality of all things, which is the basis of their creed, leads to a life of utter \*self-abasement and great austerity, with the view of winning the favour of Siva. No doubt, as in the case of Kallu Singh, many, perhaps most, are brought into contact with this casteless sect, and become enrolled as members, by force of circumstances, as a dernier resort rather, than from any original desire to place themselves in the lowest ranks of society, and the sect may be regarded, to a great extent, as a refuge for the destitute and the unsuccessful in life; but in the days when its numbers were large and its doctrines more wide-spread, there may have been many who preferred, upon strictly religious grounds, to lead the life of rigid asceticism, imposed by this mendicant sect, with the prospect of a rich reward in the hereafter. The present fanatical ascetics have probably been evolved by a process of gradual degradation from the earlier and more philosophical worshippers of Siva.

The drinking vessel of human skull, which with the staff constitutes their whole property, seems to be universally carried and used by the Aghori, even by those who do not persist in the practice of eating human flesh, which is permitted by their tenets. F. B. Solvyns, who restricts the term "Agoury" to an outcast class of women (" proscrite") says, "J'en ai même connu une qui vivait avec un riche Européen, et qui avait adopté les usages et les manières du pays de celui-ci; mais elle ne buvait que dans une coupe faite d'un crâne humain, garnie en or, et montée sur un pied artistement travaillé." This was presumably an exceptional instance, and the gold mounting of the skull bowl of this reclaimed Aghori woman reminds one of the elaborately decorated skull vessels of the Mongolian Buddhists, rather than of the rough uncleansed skulls used by the ordinary Aghori wanderers. The skull bowl belonging to Moti Nath, which I exhibit, is characteristic in not being embellished in

<sup>1 &</sup>quot;Les Hindoûs," 1810, ii, Pl. IV.

any way, the mere vault of a human skull, not even trimmed and smoothed at the edges for convenience in use. (Fig. 1.)

Notes on the Use of Human Skulls as Drinking and Libation Vessels by Various Races.

In connection with the use made by Aghoris of human skulls for their drinking bowls, it is of interest to note, by way of comparison, instances of a similar custom amongst other races, and to give the reasons which dictate the custom, which

is very widely spread.

In the case of the Aghori, the use of a skull for drinking from, originally referable to Devi-worship, is a part of their practice of self-abasement, and is associated with the cannibalistic habits permitted and encouraged by this sect of ascetics. Any human skull will answer the purpose, and it is in no way material that the former owner and wearer of the skull should have been when living in any way connected with the Aghori who appropriates it from the dead body. In this respect the Aghori and Aghorapanthi differ from other peoples who make use of skulls for these purposes, and form a class by themselves.\(^1\) In all other instances (or nearly all) the position of the individual whose skull it was when living, to the user of the skull as a vessel, is a matter of importance, and in most cases actually dictates the custom.

The custom of making drinking cups of the skulls of slain enemies is a widespread one among the more primitive warlike races. It is associated, primarily at least, with the widely prevalent belief in the transference of the powers of the deceased to the living victor, who is, according to this doctrine, enabled to add the skill, prowess and courage of his dead enemy to his own. It would seem probable that most forms of cannibalism owe their origin to a basis of this doctrine, which finds expression in numerous methods of treating and using the bodies, or portions of them, of deceased foes, which need not be enumerated here. The doctrine itself is natural enough when

regarded in the light of primitive philosophy.

Of the Nukahivans of the Marquisas it is said that "As soon as an adversary had bitten the dust, the lucky warrior cut off the head of the slain, opened the skull at the sutures, drank the blood and a part of the brain on the spot." (Featherman, "Oceano-Melanesians," p. 91.) Krusenstern ("Voy. Round World," 1803-6, p. 180), in describing the Nukahivans, tells

We must associate with them the Saivaite sect, or subdivision, of Kāpālikas (or Pāsupata) of Southern India, said to have been founded by Saikarācārya, the "establisher of six forms of doctrine," who derive their name from their use of a human skull as a drinking vessel. Monier Williams, "Brahmanism and Hinduism," 1887, p. 94; Barth, "Religions of India," 1882, p. 214.

of "barbarous scenes that are enacted, particularly in times of war; the desperate rage with which they fall upon their victims; immediately tear off their head, and sip their blood out of the skull with the most disgusting greediness," and he adds in a note, "All the skulls which we purchased of them had a hole perforated through one end of them for this purpose." this case the skulls do not appear to be kept for use as drinking vessels, which latter custom may be a later and improved derivative of the more rough and ready Marquisan method of treating enemies' skulls. Williams ("Fiji," p. 51), speaking of the manner in which the Fijians were wont to boast of their prospective deeds of valour on the eve of battle, says, "Under the excitement of the time, indiscreet men have been known to utter special threats against the leader of the enemy. Shouting his name, they declare their intention to cut out his tongue, eat his brains, and make a cup of his skull." That this latter threat was not always an empty one we may gather from the account given by John Jackson of a Fijian cannibalistic feasting ground, which he visited in 1840, and where he saw all the ceremonial observed by these natives in eating their enemies. In his description of the spot, where there stood a bure kalou (or temple of a god), he says, "On the table lay two skulls used for drinking angona, several more lying about on the floor.1

A similar use of skulls in the Kingsmill Islands is mentioned by Angas.2 He says, "Toddy is procured from the spathe of the cocoanut tree, and used as an intoxicant beverage at their feasts, where it is served in large wooden bowls, from which it is handed round in small cups formed of cocoanut shells, or in human skulls." Mr. Graham Balfour in a letter to myself mentioned having seen in Dec. 1894, at the Maniapa of Teriri at Apemama, Gilbert Islands, a number of skulls of executed criminals, suspended from a hanging platform in the centre of the house, one of them being decorated with chains of shell money, and mounted like one of the cocoanut

shells used for drawing water from wells.

The use of an enemy's skull as a drinking vessel was in vogue amongst the Iroquois as evidenced in the addresses of Iroquois women to the shades of departed relatives, whose death they would avenge, which contained the most fiendish threats to the prisoners of war, who awaited torture and death. "Him will I burn, and put into the cauldron: Burning hatchets will soon be applied to his flesh . . . they will drink out of his skull."8 Molina ("Hist. de Chile," Madrid, 1795, ii, p.

3 "Polynesis," 1866, p. 398.

<sup>1</sup> Erskine, "Islands of Western Pacific," 1853, p. 426.

<sup>3</sup> Thos. Jefferys, "Hist. of French dominions in N. and S. America," 1759, p. 63.

80) speaks of a similar custom among the Araucanians, who, after torturing their captives to death, made war flutes out of

their bones, and used the skulls for drinking vessels.

In Western Africa the custom of preserving the skulls and lower jaws of slain enemies, or in many instances of inoffensive people murdered for the sake of their heads-is well known, and in some instances the skulls are turned into drinking vessels. Specimens of the latter are, however, rare in museums, though both the British and the Berlin Museums possess exam-The two examples in the British Museum (Figs. 2 and 3) are two simple calvariæ, the lower portions of the skulls having been roughly broken away, leaving the edges uneven and practically untrimmed; they come from Ashanti, but have no details of information as regards their exact provenance, nor as regards Probably they were used as vessels for containing drink offerings presented to the fetish figures. Dr. v. Luschan,2 describing a specimen of skull drinking bowl from Upper Guinea, Togo country, says that the skull was first boiled in water to soften the flesh, which was then removed from the bones with a knife, and a well cleaned and neatly finished drinking cup formed from it. In Nkonya, in the Tschi-speaking country, offerings are made at Wurupong to the principal fetish Yia, to whom must be offered every year a new drinking bowl made from a human skull, for he does not care to drink from an ordinary calabash bowl. The bringer of such a bowl is highly thought of and respected. In this West African custom the skull is used purely for propitiation of the god, and not, as in the other cases mentioned, used for transferring the powers of a dead foe to the living victor.

In ancient times, as we learn from Herodotus, this treatment of the heads taken in war prevailed amongst the Scythians, who always drank off the blood of the first enemy killed, and who preserved the heads of their most hated enemies in the following manner. The skull was sawn off below the eyebrows and the calvaria was cleaned, and if the owner of the trophy was a poor man he covered it with leather on the outside, if he was a wealthy man he in addition to this lined it inside with gold; the bowl thus formed was then used as a drinking vessel. Not only were the heads of enemies so treated, but if a Scythian pleader won a suit against even a relative in the presence of the king, his right it was to kill him and make a drinking cup of his skull, so that similar rules applied to victory in the law court as in war.<sup>3</sup> Strabo,<sup>4</sup> c. B.C. 54—A.D. 24, also mentions the

<sup>1</sup> Quoted by J. G. Bourke, "9th Rep. Bureau of Ethnology," p. 489.

 <sup>&</sup>quot;Verhandlungen d. Berliner Anthrop. Gesellschaft," May 27, 1893, p. 271.
 Herodotus, "Hist.," iv. 65.

<sup>4</sup> Lib. VII, cap. iii, ed. Müller and Dübner, 1853, p. 249.

ferocity of the Scythians towards strangers, whom they slew and eat, and whose skulls they made into drinking cups, on which account, he says, the Black Sea (Pontus) was called Axenus (the "Inhospitable"). Colonel Tod and others have sought to prove that the Rajputs, who came as a conquering race into India, were of Scythian origin, citing, in proof of this view, several customs common to both Rajputs and Scythians, amongst others, that of drinking blood out of an enemy's skull.<sup>1</sup>

Livy, in describing a successful expedition made by the Boii against the Romans, says, "A small number of the great force, who, making for the bridge over the river, were cut off, were captured, the bridge having been previously occupied by the There Postumius fell fighting with all his might against capture. The spoils of his body and the leader's head, which had been cut off, were carried by the Boii amid rejoicings to their most sacred temple. Then having cleansed the head, after their custom, they covered the bare skull (calvam) with gold. And this became a sacred vessel to them, from which they could offer libations on holy days, and this same became a drinking vessel for the priest and chief people of the temple." The Boil were a Celtic (Gaulish) people, who at an early date crossed the Alps and settled between the River Po and the Apennines, and who greatly harassed the Romans during the third century B.C. Another ancient people, said also to be of Celtic or as some say Teutonic origin, are credited by Ammianus Marcellinus with drinking blood from their enemies' skulls. These are the Scordisci, ancient inhabitants of Pannonia, of whom it is said, "Hostiis captivorum Bellonae litant et Marti, humanumque sanguinem in ossibus capitum cavis bibunt avidius."

As another case in point we have the well known story of Alboin, who became King of the Lombards in 561 a.d. He was married to Rosmunda (as second wife), daughter of Cunimund, King of the Gepidæ. He slew his father-in-law with his own hand in a battle which nearly exterminated the Gepidæ, and in a fit of drunkenness sent to his wife a cup made from her father's skull, brutally inviting her to drink from it. This savage act led to his assassination on June 8, 573, by an agent of his wife, Rosmunda. The Scandinavian gods

Blavatsky, "Caves and Jungles of Hindostan," 1892, p. 211. Tod, "Annals and Antiquities of Rajast'han" (Rajputana), i, p. 68. "The Rajput delights in blood, his offerings to the god of battle are sanguinary, blood and wine. The cup (cupra) of libation is the human skull. He loves them because they are emblematic of the god he worships; and he is taught to believe that Har loves them, who in war is represented with a skull to drink the foeman's blood."

<sup>2 &</sup>quot;Hist." xxii, 24 fin
3 The text gives "cal were." but better sense is made by reading "celavere," and I have ventured to adopt this reading in my translation.

have been by some credited with drinking out of human skulls at their mythical banquets in Valhalla, but this is, I am informed by Prof. York Powell, due to a mistranslation, as no such statement is made in the original Saga.

Even nearer home and in our own day the practice of using a skull as a drinking bowl is barely extinct. Mitchell¹ mentions the belief still surviving in Britain, "that epilepsy may be cured by drinking water out of the skull of a suicide, or by tasting the blood of a murderer." He adds, "I have known epileptics so treated."² This notion is associated with a widespread belief in the efficacy of dead men's skulls and bones for cure of epilepsy and other disorders. Powder made from human skulls was much valued, and even moss found growing upon a skull was found to be most efficacious in stopping hæmorrhages.³

The practice of preserving the bones of deceased relatives, and carrying them about for a longer or shorter time, is probably associated with a kind of primitive philosophy nearly akin to that which dictates the similar practice applied to the bones of enemies. In the case of this treatment of enemies, revenge seems to be only a minor incentive to the practice, the primary motive being the desire to acquire a part of the acknowledged powers of the deceased foe, through the direct medium of portions of his person. It is as a rule only the most powerful and dreaded enemies who are considered worthy of such post-mortem treatment, which is therefore rather complimentary to the deceased than otherwise, as being an acknowledgment of the prowess and courage which were his characteristics during life. In the case of the preservation of portions of the bodies of deceased relatives, there is, no doubt, some notion of piety in the act, and also a desire to propitiate the spirits of the departed, which might otherwise become troublesome. But, associated with these ideas there probably is the doctrine of the transmission of the characteristics of the deceased to the surviving relatives, who by this means may inherit his good qualities and virtues.

Although the preservation of the skull, bones, and other portions of the body of lately deceased relatives, is a very widely diffused practice (e.g., in the Andaman Islands, Society Islands, Siam and many other regions\*)—the practice of making drinking vessels of their skulls is of very limited distribution.

<sup>1 &</sup>quot;The Past in the Present," 1880, p. 154.

<sup>&</sup>lt;sup>2</sup> See also Roger's "Social Life in Scotland," iii, p. 225, where the custom of drinking from a suicide's skull is described from Caithness and the neighbourhood.

<sup>&</sup>lt;sup>3</sup> W. G. Black, "Folk Medicine," 1883, p. 96. Also Gomme, "Ethnology in Folklore."

<sup>&</sup>lt;sup>4</sup> v. Giglioli, "Ossa Umare portate come ricordo o per ornamento e usate come Utensile od Armi," "Arch. per l'Antrop. e la Etnol.," xviii, 1888.

The custom is, however, well-known in South Australia. Angas, in describing the burial customs of the natives of the Lower-Murray River district, says: "The body is never buried with the head on, the skulls of the dead being taken away and used as drinking vessels by the relations of the deceased. Mooloo, the native whom I met near the junction of the lake, parted with his mother's skull for a small piece of tobacco!" He adds later, "If the body . . . should happen to belong to a warrior slain in fight . . . after the body has remained for several weeks on the platform, it is taken down and buried; the skull becoming the drinking cup of the nearest relative." The same author in another work figures a skull drinking vessel used by natives about Lake Albert and along the Coorung river. He says, "They generally prefer the skulls of deceased parents or other near relations, to those of strangers." In reference to Plate XXXVI of the same work, which illustrates natives of the Coorung, he says, "The girl carried a human skull in her hand, it was her mother's skull, and from it she drank her daily draught of water." E. J. Eyre, quoting Mr. Meyer, says of the burial customs observed by natives of Encounter Bay, South Australia, "The corpse being placed in the tree, a fire is made underneath. . . . In this situation the body remains, unless removed by some hostile tribe, until the flesh is completely wasted away, after which the skull is taken by the nearest relative for a drinking cup."

All the South Australian skull drinking towls of which I have seen figures, or specimens, have been, with one exceptior, made by cutting away the facial portion of the cranium, leaving the entire skull vault practically intact. The single exception to this rule is a specimen in the possession of Professor E. Giglioli, of Florence, which consists of the hinder portion of the calvaria, cut off vertically from bregma to occiput. The skullcups are often furnished with cords for carrying them about, and where they are fractured or the sutures gape, the apertures are stopped with gum or "black boy," to which are sometimes affixed flat pieces of shell.4 This is seen in the specimens exhibited (Figs. 4 and 5.) It was also usual to place a wisp of grass inside the cavity of the skull to prevent the water from being spilled in carrying (Fig. 5). I have not seen it stated that the Australians use the skulls of enemies for a similar purpose.

Herodotus<sup>5</sup> in his description of the Issedones gives a passage which may possibly have reference to the custom of

1 "Savage Life," 1847, i, pp. 94, 95.

<sup>&</sup>quot;Swinge Life, 1021, 1, pp. 57, 50.
"South Australia," Plate XXVII, Fig. 25.
"Discoveries in Central Australia," p. 345.

4 Vide Augas, "S. Australia," Plate XXVII, Fig. 25; Eyre, l.c., Plate IV, Fig. 20; J. G. Wood, "Nat. Hist. Man," ii, p. 86. "Hist.," iv, 26.

using the skulls of dead relatives as vessels. After describing how, when a man's father dies, all his relatives are summoned to a banquet at which the flesh of the dead man is solemnly eaten, he goes on to say, "την δε κεφαλην αὐτοῦ ψιλώσαντες καὶ ἐκκαθήραντες, καταχρυσοῦσι καὶ ἔπειτα ἄτε ἀγάλματι χρέωνται, θυσίας μεγάλας επετείους επιτελέοντες. i.e., Having laid bare and cleansed the head, they overlay it with gold; and then they use it as a sacred image, performing grand yearly sacrifices (to it)." There has been some question as to the meaning of the word ἄγαλμα. Baehr translates it "sacred image," Schweighæuser "sacred ornament," while Larcher renders it "precious vessel." Although this latter rendering must be regarded as a somewhat free one, it has, nevertheless, the support of analogy. If we may, with Larcher, regard the Issedones as making a vessel or bowl of the skull of a relative, and lining it with gold, this is exactly what, as we have seen, the Scythians practised with the skulls of their enemies. From the geographical position, too, of the Issedones, in Central Asia, we might expect to find customs akin to those of modern central Asian Mongoloid peoples, and this use of skulls both of friends and enemies as drinking and libation bowls, often richly overlaid with gold, is one which is very familiar to all students of the practices of Mongolian Buddhism. I do not wish to press this reading of the passage, but merely to show that a comparative study of customs at any rate lends support to it.

I have reserved to the last for consideration the drinking and libation vessels made from human skulls used in Mongolian Buddhist ceremonial, because in several respects they present

special features.

It is now some twenty-six years since the late Professor George Busk exhibited before the Ethnological Society an interesting calvaria from China, one which was said to have been looted from the Summer Palace by one of Fane's cavalry. In a very interesting paper the skull was described, but its use was at that time a matter for conjecture, as nothing was certainly knewn. This calvaria, which I again exhibit (Fig 6), was formerly mounted in gold and set with jewels in a most elaborate and costly manner, and formed one of the most interesting exhibits in the Great Exhibition of 1862. I exhibit also a sketch of this calvaria as it appeared in its glory; it then belonged to Mr. Tait. Somehow it came into the hands of a Jewish goldsmith in Houndsditch, who stripped it of its valuable gold mountings, leaving the

Waring, "Masterpieces of Industrial Art," iii, Plate 291.

<sup>1 &</sup>quot;Journ. Ethn. Soc.," N.S., ii, 73-83, and Plate; also ih., p. 156 (where it is suggested that the specimen may have been obtained from the Lama temple of Hill Sze).

bare skull-vault alone. It was obtained from him by a Dr. Millar, who gave it to Mr. Mummery. It later found its way to the Oxford University Museum, where it now belongs. I give this piece of history as I have been asked where this skull was now to be found, and I hope it has found a permanent home at last. The curious and interesting designs raised upon its surface have been described by Dr. Busk, and I need not dwell upon them. With this specimen I exhibit another also from Peking, which was sent to Professor Philipps for the Oxford Museum by General Gibbes Rigaud (Fig. 6). It was taken from a temple within the precincts of a great Lama Monastery at Peking. General Rigaud adds in a letter: "These cups out of which the priests of Buddha drink confusion to their enemies (this one was half full of samshoo, and probably a toast had shortly before been given to the 'fat-faced barbarian, the Earl of Elgin and Kincardine'), are made as far as I could learn either out of the skulls of rebels of the highest order, or those of priests of such holy



character as to obtain after death the title of 'Living Saints.' Whether this be the skull of a saint or a sinner, I must ask Dr. Rolleston to determine, to whose care I suppose it may go." This skull-cup is also

inscribed with a mystic Tibetan inscription, which has not been quite satisfactorily deciphered, but it appears to read gra-thad, with a possible play upon the word gra, which can mean an open dish and a foe (Col. Lewin). Such a punning inscription would apply admirably to many of the skull bowls which I have mentioned. This skull is mounted in very much the same manner as the other formerly was, but in a less costly manner, in gilt copper, surmounted on the cover with a dorjé or thunderbolt. Such skull vessels are now very familiar in museums, and their use in Lamaistic ceremonies has been described by several people; notably by Mr. Rockhill, who devotes a paper to the subject.1 Several early writers on Tibet mention the making of drinking cups from the skulls of cherished relatives. William de Rubruquis (sent by Louis IX. of France to travel in the East in A.D. 1253) describes the Tibetans, "who had formerly a custom to eat the bodies of their deceased parents, that they might make no other sepulchre for them than their own bowels. But of late they have left off this custom, because thereby they became odious to all other nations; notwithstanding which, at this day, they make fine cups of the skulls of their parents, to this end, that when they drink out of them, they may in the midst of all their jollities and delights, call their dead parents to remembrance: this was told me by one that

<sup>1 &</sup>quot;Proc. Amer. Oriental Soc." Oct. 31, 1888, pp. xxiv-xxxi.

saw it." This description reminds one of the Issedones. Rockhill also quotes Friar Odoric, and Georgi ("Alphabetum Tibetanum") to a similar purpose in regard to the Tibetans. He adds, however, that "careful inquiry has failed to elicit any proof that Tibetans of the present day use the skulls of revered relatives as drinking vessels. A few ascetics, however, do make use of skulls as their eating bowls . . ." "At the present time, human skulls are used for two purposes: 1st, as an offering to Tsepamed (Amitābha), who is represented holding in his hands a skull filled with ambrosia, so as to call down on the giver the divine blessing in the form of worldly prosperity; and 2nd, as a receptable for the wine or other liquid offered to the gods." Rockhill gives a translation of an exceedingly interesting, if quaint and amusing, MS. Manual in the possession of a Lama priest, on the "Method for distinguishing good and bad skulls, and how, by offering a kapāla (Skr. skull), to obtain worldly prosperity and create a wish-granting source." From it we may gather incidentally that the skull bowl (Fig. 6) described by Professor G. Busk was one of the very best kind, insomuch as it has upon it the letter a, and other symbols.

Colonel Yule,2 remarking on the great use made by certain classes of Lamas of human skulls for magical cups, and of human thigh bones for flutes and whistles, says that to supply them with these "the bodies of executed criminals were stored Rockhill<sup>8</sup> tells how at up at the disposal of the Lamas." Bat'ang, after an uprising instigated by the Lamas in 1887. "The Lamas took from the grave the bones of Father Brieux, killed in 1881, filled their place with ordure, and made a drinking cup of his skull." The missionaries were of course

regarded as enemies of society.

Legend ascribes the origin of the use of a human skull as a drinking vessel to the goddess Lhamo, who is a Tibetan form of Devi, the consort of Siva. Waddell4 says that "Primitive Lāmaism may be defined as a priestly mixture of Sivaite mysticism, magic, and the Indo-Tibetan demonolatry, overlaid by a thin varnish of Mahāyāua Buddhism. And to the present day Lāmaism still retains this character." "Tantrism, which began about the seventh century A.D. to tinge Buddhism, is based on the worship of the Active Producing Principle (Prakriti), as manifested in the goddess Kali or Durga from the tenth century Tantrism has formed a most essential part of Lāmaism" (p. 129).

The legend of Lhamo, as culled from the book "Paldan

<sup>&</sup>lt;sup>1</sup> "Pinkerton's Voyages," vii, p. 54.
<sup>2</sup> "Marco Polo," i, p. 275 note.

Land of the Lamas," 1891, p. 273.
 Buddhism in Tibet," p. 30.

Lhamoi Kang Shag," "to perform confession before the venerated Lhamo," a copy of which in Tibetan and Mongolian is in the library of St. Petersburg University, and as given by Emil

Schlagintweit1 runs thus:

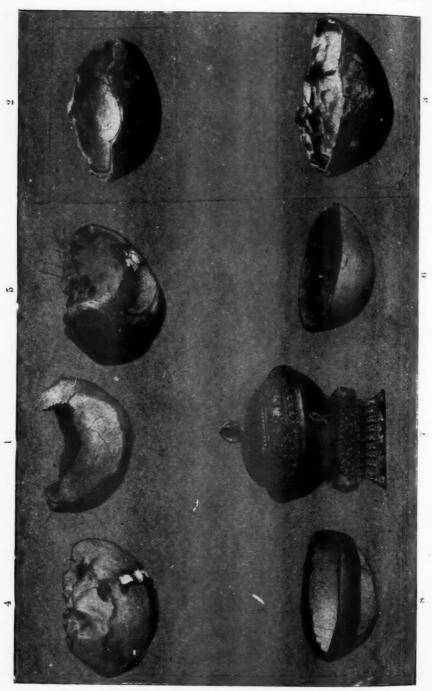
"The goddess Lhamo was married to Shinje (the judge of the dead), the King of the Dudpos, who at the time of the marriage had assumed the form of the King of Ceylon. The goddess had made a vow, either to soften her husband's notoriously wild and wicked manners, and make him favourably disposed towards the religion of Buddhas, or, failing in her praise-worthy endeavours. to extirpate a royal race so hostile to his creed by killing the children that might issue from the marriage. Unfortunately it was beyond her power to effect an improvement in the evil ways of the king, and, accordingly, she determined to kill their son, who was greatly beloved by his father because in him he had hoped to put a complete end to Buddhism in Ceylou. During a temporary absence of the king, the goddess put her design in execution; she flayed her son alive, drank the blood from out his skull, and even ate his flesh. She then left the palace, and set out for her northern home, using her son's skin as a saddle for the king's best horse." This estimable champion of Buddhism is represented in Mongolian Buddhist art holding in one hand her son's skull from which she drank, and may be seen in the small images which I exhibit (Figs. 9, 10, and 11), and skull drinking-bowls with libations or food offerings are offered at the shrines of this goddess who upheld the religion. It is interesting to find in this legend an association of the use of skulls as drinking-bowls with the goddess Devi, when we recall the fact that the similar use of skulls by the degraded Saivaite Aghoris is referred for its origin to a primitive Devi worship.

The Dragsheds, or gods who protect man against evil spirits, are represented in Tibet as holding a Kapāla or skull drinking cup in one hand, an emblem of that from which Lhamo drank her son's blood (Schlagintweit, p. 215). I exhibit also a skull-cup, roughly mounted with a brass rim, from Darjīling, brought home by Major R. C. Temple for the Oxford Museum (Fig. 8). Major Rennell states that he "has seen, brought from Bootan, skulls that were taken out of temples or places of worship; but it is not known whether the motive to their preservation was friend-ship or enmity. It might very probably be the former. They were formed into drinking bowls in the manner described by Herodotus, by cutting them off below the eyebrows; and they

were neatly varnished all over.

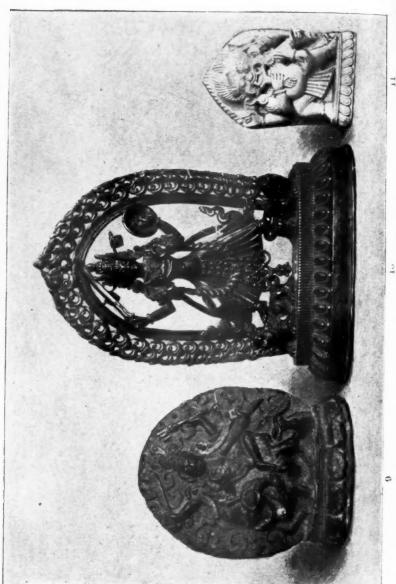
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Journal of the Anthropological Institute, Vol. XXVI, Plate XXXIII.



111. \* 2

Journal of the Anthropological Institute, Vol. XXVI, Plate XXXIV.



#### Description of the Figures.

- Fig. 1.—Drinking vessel made from a human calvaria, used by Moti Nath, an Aghori Fakir of the Oghar sect. Obtained by Surgeon Captain H. E. Drake Brockman, I.M.S., in Rajputana, and presented by him to the Oxford University Museum.
- Figs. 2 and 3.—Two drinking or libation vessels made from human calvariæ, from Ashanti; British Museum.
- Fig. 4.—Drinking vessel made from the calvaria of a deceased relative; the sutures stopped with black gum and pieces of shell; South Australia; Pitt Rivers Collection.
- Fig. 5.—Similar skull drinking vessel with wisp of grass in a rent the water carried in it from being spilled; South Australia; Christ Church Collection, Oxford University Museum:
- Fig. 6.—Drinking or libation vessel made from a carefully polished human calvaria, with designs raised upon its outer surface, formerly mounted in gold and jewels. Described and figured by Dr. George Busk ("Journ. Ethn. Soc.," N.S., ii, p. 73 and pl.); Oxford University Museum.
- Fig. 7.—Similar vessel, the calvaria lined with copper, and mounted upon a copper-gilt triangular stand, repoussé and chased, with cover of similar work surmounted by a dorjé or thunderbolt. From a temple within the precincts of the great Lama Monastery at Peking; presented to the Oxford University Museum by General Gibbes Rigaud, 1862.
- Fig. 8.—Lepcha priest's drinking cup made from a human calvaria rudely mounted with a brass rim set with a black pitch-like substance, Darjiling; presented to the Oxford University Museum by Major R. C. Temple, 1892.
- Fig. 9.—Baked-clay and painted figure of the goddess Lhamo, illustrating the legend of her escape from Ceylon. She is represented riding on her husband's horse, seated on the flayed skin of her son. In her right, lower hand, she holds his skull, from which she drank his blood; possibly Tibetan; Pitt Rivers Collection.
- Fig. 10.—Bronze figure of Kali, with necklace and apron of human skulls, holding in right, lower hand, a drinking cup made from a human calvaria; India; Pitt Rivers Collection.
- Fig. 11.—Carved ivory figure of Kali, holding in the left, lower hand, a drinking cup made from a human calvaria; Indian or Cingalese work; Pitt Rivers Collection.

# ETHNOGRAPHICAL NOTES in New Georgia, Solomon Islands. By Lieutenant Boyle T. Somerville, Royal Navy.

#### [WITH PLATES XXXV-XXXVII.]

DURING the latter halves of the years 1893-94, the officers of H.M. Surveying Ship "Penguin" were employed in making a survey of the hitherto little known island, or, more properly, group of islands, named New Georgia, in the Solomon Islands, South Pacific; and the following casual notes, made while camping in various parts in this locality during the progress of the work, may prove of interest. Wherever information is at second-hand it is expressly so stated; the remainder is all original personal observation. The various heads of information are taken in the order given in "Notes and Queries on Anthropology."

VOL. XXVI.

#### General.

The New Georgian Group is peopled by mixed races, exhibiting, facially, principally Negroid and Papuan affinities, but with a large range of characteristics from other parts of Oceania. There are two main languages in the group, Eastern and Western, which differ sometimes largely, and sometimes hardly at all; as a rule however, Easterns and Westerns under-

stand eacher's speech.

Their general demeanour is by most white people said to be "ferocious," and certainly they are inveterate head-hunters. Our officers, however, never experienced anything but civility, good temper, and occasionally kindness at their hands. The result of their custom of head-hunting has been to drive a certain proportion of "salt water" folk back into the interior, where the tropical density of the bush, and maze of tracks, I have no doubt that this habit, continued ensure their safety. from time immemorial, has given rise to an opinion (derived from contempt of a fee who hides, rather than fight for his head) that "man-bush" belongs to a different, and insignificant race. One short excursion that I made into the interior apprised me of the fact that that part of the group, anyway, instead of being very sparsely populated in a few villages on the coast, as generally supposed, is, on the contrary, fairly well inhabited in the interior slopes and valleys of the hills where, in quite a small radius, huts and clearings appeared on all sides in the midst of the bush; quite invisible, however, to a passing ship or canoe.

A slight general description of the topography may be of help

while perusing the notes that follow.

New Georgia consists of a group of islands, closely adjoining, roughly occupying an east-south-east direction for about 80 miles, in the central southern portion of the Solomon Group. The largest island has no general native name. It has hitherto appeared in charts and travellers' books as Rubiana, Kusage, or Márovo. These, however, are only names of three of its districts, and we have, therefore, preferred in our survey—the first that has ever been undertaken—to call it Main Island, thus giving preference to no particular district.

Divided from Main Island by a passage a few hundred yards broad is, to the eastward, Vángunu, a vast extinct volcanic crater, rising about 4,000 feet above sea level, now entirely and densely wooded; which has a sort of peninsula attached to the northern end of it; a district known as Mbáriki. Eastward again, across a second passage, is the fine cone of Gátukai; and then, separated by a strait about one mile wide, is the small island of Mbulo, and the islet Kicha, which conclude the group to the eastward.

To the westward of Main Island is Wana wana, a low flat coral island, only separated by a very narrow channel, called Hathorn Sound, which closes in to the Diamond Narrows—a passage through which the tides, flooding and ebbing to the Rubiana lagoon, rush with great speed.

Westward of Wana wana is Gizo, or, probably, Kiso (Shark

Island), also coral, of no great height.

To the north-west of Main Island is Kulambangara (King Frog), a splendid shattered crater, long extinct, and said to now contain a great lake of water, which rises almost abruptly over 4,000 feet from the sea, presenting at all times, and on all sides a peculiarly imposing and solemnly picturesque landscape of vast crater walls, precipitous gullies, and strong slopes, made even and soft-edged with dense ancient forest.

South of the west end of Main Island there are, first, Rendova Island (which has probably derived its name from *Rendezvous*, as, on account of a convenient harbour which exists on its northern side, it has long been a meeting place for men-of-war and other vessels), on the other side of the Blanche Channel; which has at the north end a fine volcanic cone about 3,000 feet high, tailing off into a knife-edged promontory to the south. It concludes at a narrow strait, on the other side of which is a long and hilly island, of volcanic origin, with a broken coral shore line, called Tetipari.

This completes the larger islands of the group. We now come to its most striking, and probably unique feature—its

barrier islands and lagoons.

From Wana wana, following the southern shore of Main Island to the eastward for a distance of about 20 miles, there is a long chain of barrier reef and islands, which enclose the Rubiana Lagoon. On its inner beach is built the largest settlement in the group, a series of villages holding probably between 3,000 and 4,000 inhabitants, the chief of which gives

its name to the lagoon.

The barrier ceases here for about 10 miles; but then, striking out again in a long coral tail, sweeps round in a series of islets and sunken reefs, enclosing the bay formed between Main Island and Vángunu, afterwards winding across the strait between Vángunu and Gátukai, in a second chain of islands. From Gátukai, the barrier strikes rectangularly northward, now in a much more remarkable form; for here the ancient barrier reef has been volcanically elevated two or three times—judging by the successive sea levels clearly marked on its exterior coral cliffs—and stands up, an impassable wall, 150 feet high, the top of which is densely wooded, and perfectly flat. At first this wall is double, but, after 5 or 6 miles, where it

sweeps round to the north-west, it becomes single again, and in that form follows the trend of the coast for 40 or 50 miles, at distances varying from a half, to two and three miles from the enclosed land. The whole of the lagoon thus formed is sprinkled with a myriad reef islets, flat-topped, wooded, and

usually about 90 feet high.

Access to this enclosure is possible by narrow deep passages, which break the barrier wall every 4 or 5 miles, through which the tides swiftly run: and having entered by one of these, ships that have good turning-power may, in several places, find deep channels between the innumerable reefs that encumber the lagoon, leading up to the small native settlements on the main land. To look down upon the lagoon from the summit of any of the hills of the large islands is to have spread before one the strangest and most picturesque scene imaginable. The splendid luxuriant bush close round forms a foreground of the highest interest, edged at the water line by the white sand, or dark green mangroves of the coast, with perhaps a brown thatched native village standing among its coconut palms, and canoes plying about beyond on the calm water.

The middle distance is filled with the lagoon itself, dark blue in the deeps, pale blue in the shallows, light brown over the labyrinthine reefs—a feast of colour—set about with islands, islets, and rocks, in uncountable variety, each bearing a miniature forest. And there, bounding them in, the great green snake of the Tomba—the barrier island chain—unnatural pieces of bent land, 5 miles long, 200 yards wide, twisting this way and that, until the winding tail is lost round the last headland of the wild volcanic hills, in the sea mist of the surf, beaten to foam on its outer edge. Outside, the suddenly deep ocean, with its wave crests, and continual swell, carrying the eye back to the far horizon, where faintly shows the hilly outline of Ysabel Island.

This is the view from the sharp summit of Márovo, a hilly island only slightly detached from the coast in the eastern lagoon, which, as it was in old times the most populous and agreeable to trade at of any of the places near by, was a good deal visited by traders and others. From this early communication it has given its name (Márovo) to all New Georgia on the older charts. It was in the vicinity of this part of the group that I was encamped during three months of 1893 and five months of 1894, shifting from island to island in the lagoon, as I worked westward. It is, accordingly, the Eastern, or Márovo dialect that I understand best; and all the native words contained in this paper belong to it. This is unfortunate; as by far the most prosperous, populous part of New Georgia nowadays is the western part, the Rubiana district; and of this the

language and customs are no doubt—the language is certainly—a good deal different to the Eastern. Perhaps some day both may be rescued from the advancing oblivion of civilisation.

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## Clothing.

A small loin cloth, very similar to the Fijian maro, of a rough sort of tappa, coloured usually brownish red or dark blue, constitutes the sole clothing of the males. It is perfectly modest, and offers strong contrast to the grotesque fashions of the New Hebrides. Both boys and girls adopt costume at a very early age—I should say at about four or five, sometimes even earlier. The tappa is made of several sorts of bark; kalcla, berékoto, being the two most usual. These two have a naturally reddish colour; another sort is white, and this one is often dved entirely blue with wild indigo. This is chiefly done in Ysabel, the New Georgia women being said not to understand the colouring process. The method is similar to that in use elsewhere: the bark is dried, then soaked in water, and hammered with a mallet (kimo kimo). This mallet is of circular section, and is ribbed on the outside. Bark cloth is usually made by women, but men would make it if necessary.

In New Georgia, the man's wrapper (called *ndóngondóngona*) is often of trade calico, and fashion commands that it should be



NATIVE WEARING SUNSHADE.

of a material of a single colour—preferably blue. Patterns or stripes of bright colours are invariably spoken of as "woman's calico." Those who can afford it, bind additional strips of turkey red twill, with white and blue calico, over the hips in neat ornamental bands, surmounted by a string of large beads. A sunshade is commonly worn on the head; a sort of crownless cap, with a broad square-shaped "peak" made of basket work: but European hats, and, indeed garments of all sorts, are in great demand; though, with the exception of hats and shirts, seldom worn.

The women wear a loin cloth, similar in form to that of the men, but at the back it is padded out to form a large triangular cushion, apex downward, with an abrupt ledge 6 inches wide at the top, upon which mothers frequently carry their babies. This cushion is the receptacle of all the calico and other valuables to which they can lay claim.

#### Ornaments.

The most striking ornament in New Georgia is the large ear-ring. A piece is cut out of the lobe of the ear during early youth, and the ring of flesh thus formed is gradually increased in circumference by the insertion of a strip of banana-leaf which, wound like a watch spring, keeps the lobe perpetually distended. Eventually a circle of wood occupies the hole; or, as I have seen, a disc of ebony inlaid with mother-of-pearl, sometimes even a circular trade looking glass. The largest that I measured was 4 inches in diameter.

The women have the same custom; but I never saw one with so large a ring as the men wear. It is usually worn by the young unmarried of either sex; the elder married folk are only occasionally seen with it. The septum of the nose of the elder men is often bored, but the fashion of wearing an ornament in it has apparently died, as we never saw a nose ornament

inserted in any case.

Nearly every man wears round his neck an ornament of pearl shell or clam shell of many and various patterns, quite irrespective of tribe, in which the frigate bird (mbélema), nearly always figures, with half moons, and circles with a curious fretwork pattern in the centre. These are usually hope, or amulets, and occasionally difficult to procure.

Ornamental combs are worn in the hair, but very rarely;

and never that I saw, of careful make.

The hair is carefully looked after, especially in Rubiana, and trained to a shock of curls rigorously bleached with lime, which causes it to be of a colour varying between that of Manilla hemp, and ordinary rope yarn. The point of hair on the

temples, and the triangle terminating in the centre of the back of the neck, is shaved off (modernly) with European knives; but it is often still plucked out in the old method between two edges of a cockle shell. By these means the top of the head appears as if covered with a circular mat, and this idea carried to an extreme is seen also in their carvings of Manggota¹ or other "debbleums." A light circular framework, like the brim of a hat, is sometimes worn to support the lower edge of this shock of hair.

When in mourning, the hair is cropped close and whitened, and the face shaved to a small patch of hair on the chin; this is done at the funeral feast.

In the Russell Islands, a little cluster of islands of the southeast corner of New Georgia, white wigs of some cotton-like material are made, which are in use among the bald; or also, as it was explained to me, "all o'same hat."

The fashion in beards is curious, the hair being shaved or plucked out, leaving only a small tuft an inch or so long in the middle of the chin, supported by a narrow ridge of closely curling tufts, well limed, which follow the contour of the jaw-bone up to the ear.

## Chief's Necklace.

Ingova, the king of Rubiana, wore an ornament round his neck, the sign of chiefdom, and a great "hope." He had a similar one made, and presented it to Mr. Kelly, a trader living near his place, as a token of his good will. He told him that his possessing it was an absolute safeguard on his life. I had the opportunity of closely examining Mr. Kelly's, which, though smaller, was a facsimile of that of Ingova. It consisted of a very carefully made ring called éringi, with a square section, about 4 inches in diameter, of a beautifully grained and tinted piece of clam shell; it looked like a fine piece of ivory. was suspended round the neck by means of a flat strip of finely plaited grass, stained crimson, which was carefully "worked over" one-third of the ring (in a method known in the naval world as an "Elliott's eye"). The lower part of the ring, being thus left bare, was ornamented with a close fringe of opossum teeth bound together with string, tiny holes being bored in the ring in order to support it; and, besides this, had three big flat tassels of trade beads hanging down from it at regular intervals. Some rings have these tassels and teeth secured to a flat piece of turtle shell, which is bound at the back of the The whole ornament when worn hangs below the breast bone, and is exceedingly handsome.

<sup>&</sup>lt;sup>1</sup> Manggota = "of, or connected with Manggo," under "Religion and Taboo," p. 384.

The almost invariable ornament on the arms is a shell ring These, indeed, represent money to a certain extent; (hókata). and are in use among the traders in barter for coconuts, etc. One place, Bili, at which I was camped, seems to have been a great emporium for their manufacture. I have sent to the Oxford museum specimens exhibiting the whole process, which is as follows. A suitable piece of a large clam shell (tridacna gigas; native name, indaka) is chosen, and roughly broken round to what is to be about the size of the outside diameter. This is then taken and ground down with sand and water till its outer edge is nearly circular, and free of irregularities. native drill, to be described later, is next brought to bear, and with it a series of closely adjoining holes is bored, making a circle round the centre of an inch or so in diameter. of a wiry creeper is next taken, introduced into one of these holes, and, by using it like a fret saw, in conjunction with sand and water (preferably fresh), the complete centre block is cut out.



TWO NATIVES OF NEW GEORGIA.

The ring is now placed on a stick of hard wood or stone (the latter shaped somewhat like the sharpening stone of a scythe), and the central hole is gradually ground out larger and larger upon it, still with sand and water, until the ring has

acquired the proper internal diameter. The completed rough article is then smoothed and polished with fine sand and a piece of bamboo, until both inside and outside have the proper finish. These rings are made large enough to go over the upper arm, and are ground flat on the inside but semi-circular on the outside, and are altogether about half-an-inch in thickness. A man may make one such ring in about two days, if he keep at work. Finger rings both of shell and tortoiseshell are also made and worn.

A man in full dancing dress wears as many rings as he can get on either arm.

When in mourning, a string of native cord is worn round the neck, wrists, and ankles, sometimes also in two diagonals across the chest. I have seen, besides, the bowl of an old tobacco pipe attached to the string worn on the neck, containing the little finger nail of the man whose death was mourned.

## Painting and Tattooing.

The only paint used on the body is lime, and that only in thin lines on the face, called *mbusapúnderi*. These are usually three in number, one across the eyebrows from temple to temple, one round the contour of the jawbone over the whisker before described, and one carried on from the temples over the cheek bone, ending at the bridge of the nose. I could never learn the meaning of these lines, but they seemed to be considered part of full dress; visitors, for instance, from one village to another, or even to our camp, always wore them; and after bathing the natives were careful to mix up some lime from their limepot, and put on the usual lines.

There is no tattooing in New Georgia, but raised cicatrices are very common; the design is almost invariably a frigate bird, or porpoise, or both; and appears on the top of the shoulder, shoulder blade, breast, and thigh. It may be worn on all of these at once, the porpoise occurring more usually on the thigh, and the frigate bird on the shoulder; so that I have thought it may have some reference to the desire to have the porpoise's strength and endurance in the legs for swimming, and that of the frigate bird's for the arms. Some natives will tell you that this adornment is allowed only to the sons of chiefs; but I have it on the authority of Bera, himself a chief, that anybody might wear one; and I saw many men thus marked who certainly were not chiefs. It is done during youth to one another by the boys, with a knife or a sharp shell. I did not see enough of the women to say whether they employ this decoration or no. One chief told me that his cicatrices had been done by a girl, when he was young.

#### Habitations.

The houses are uniformly constructed of wood and thatch, and divide themselves into two classes: the *Eruo*, or big canoe house, and *Palavanua*, or small living house.

Erro.—The primary object of this form of house is to form a shelter for war-canoes, and some are solely used for this purpose; there is, however, in each village a large house of this description employed as a living house for the chief and his

family, constructed as follows:-

Three or more strong posts are stuck into the ground, one of which is "Hope," or sacred, and has a figure carved on it, usually bearing a threatening attitude. Sometimes, in fact. generally, this carved figure is seen in connection with one of a conventionalized shark or an alligator; as often as not it is held in its mouth. One post that I saw was cut from a tree with a crooked bough, and this had been utilized to represent the arm of the figure; the hand held a carved revolver (!) pointed for firing. Round the foot of the post there is usually a heap of small pieces of dead coral, and a wreath of dead leaves is secured round the post itself; both wreath and coral heap have stuck all about them every imaginable, and unimaginable article-broken tobacco pipes, rusty and worn out trade axe heads, pieces of rusty trade knives, bits of paper, shells, old wine bottles, broken shell rings; in fact, anything broken, rusty, and no longer of use in the world of men, is dedicated to this house god.

The whole post is sometimes carefully patterned and coloured. The top of these main posts is cut with a semicircular mortice in which rests the ridge pole, a stout spar extending the whole length of the house, and two corresponding parallel spars rest on several short poles stuck into the ground at the desired width of the house, at equal distances from the ridge pole, forming eave poles, these latter uprights being not more than 4 or 5 feet high. Several big rafters made of trimmed poles are now lashed on with split cane, or strong creeper, between the ridge and eave poles; and then, between these, a great number of smaller ones, about 6 or 8 inches apart. Over these rafters goes the thatch, which consists of rods 6 to 8 feet long, with strips of ivory-palm leaves, or of a certain pandanus leaf, bent diagonally across it, and then stitched with a piece of split cane; thus making a sort of tile of leaves, 6 feet long by 2 feet wide. These are secured by a lashing to the rafters, beginning at the eaves, and in a well thatched house are no more than 4 or 5 inches apart. The inside appearance of these overlapping tiles is extremely elegant, and, except in a cyclone, they are absolutely water-tight, and remain so for probably five or six years. At the gable end, the edging fronds are arranged neatly parallel to one another, and bound down to prevent flapping. The gable wall is not perpendicular, but leans outward, the ridge pole being longer than the eave poles. It also is thatched in a similar fashion to the roof, and occasionally has a pattern stitched on it with split cane over the thatching. At about the height of a man, a curved porch is contrived, which concludes the gable thatching above described; and is at such an angle as to prevent rain from beating into the house. If the house is only for canoes, there is no porch, but a long slit is carried up the gable walls to allow the immense ornamental prows of the war canoes to pass through; the lower part is closed in with a temporary thatch, and a square doorway is made to give access to the interior.

Palavanua.—The smaller houses—Palavanua—are built of the same material as the Eruo, but are quite small, and in appearance like the roof of an European house placed on the ground, with a doorway in the gable at one or both ends. There is usually a platform of sticks laid side by side, forming a sort of attic, about 5 feet from the ground, on which various household utensils are kept, but detached wooden hooks are also employed for hanging things on. I would note the custom of keeping the skulls of any animal eaten; these may usually be seen inside the houses, threaded on long sticks. They consist, for the most part, of opossum, turtle, and frigate bird skulls, and are kept either merely for ornament, or as a bragging record of former feasts and good living. I think that perhaps the custom has also some "religious" meaning.

The sleeping arrangements consist of a platform of sticks (similar to the "attic" above mentioned), just raised off the ground, with a piece of matting, or more commonly, a plaited-up coconut frond; the neck rests on a round billet of wood for a pillow.

The fireplace is usually near the open end of the house, to let the smoke escape, but there appears to be no particular spot for it.

In New Georgia the unmarried men do not sleep in a separate man's house, as so commonly elsewhere. In the chief's, or canoe, house there are generally a succession of bed rooms built along the sides under a sort of flat roofed extension from the eaves, quite small and low, with only just sleeping room for one or two. These are occupied by the wives of the chief, by his immediate relations, married and single, and also by visitors. I am informed that in Rubiana, the chief (Ingova), has a big house with separate large rooms like an European house; perhaps the idea is only borrowed.

In the smaller houses the division between married and single may be by the platform above mentioned, but otherwise I could see none. The boy children certainly sleep on it.

Natural caves, and overhanging cliffs, are used as dwelling places. Near a spot called Bili there was quite a large village. built with mats, etc., in the shelter of an ancient sea waterline, which had been scooped out of the perpendicular coral cliff by the sea when it was at that level in ages gone by, to a depth of 10 and 12 feet; and being afterwards volcanically upheaved, it is now 10 feet above the present high water mark. This curious undercliff passage extends for nearly a mile round the sea-face, varying in height from 10 to 5 feet, and mathouses had been built in its shelter at various positions. Water dripped in many places from the numerous stalactites in the roof of this strange place, and was collected in basins cut by the inhabitants in the corresponding stalagmites, or in large clam shells, which had become cemented to the heaps of stones on which they rested by the drippings of the calcareous water from above. Close to this village was an odd coral islet called Totelavi, which, being circular, with flat cliff sides, crowned by a tuft of trees, strongly resembled a large flower pot standing on the sea-reef. The flat foothold round the base of the islet was inconsiderable in extent, and the houses therefore were almost altogether built in an undercut in the cliff, similar to that of Bili just described. There was one spot in the cliff wall where, by means of a rough ladder, one could scramble to the top of this coral block; and here, in the huge honeycomb pits of the crumbling surface coral, among the vegetation which throve over all of it, a coign of safety might be found when headhunters were on the track; and there was also a small hut built there, to afford more substantial shelter when a raid was expected.

There were small square recesses cut in the coral cliff above the rock houses, which contained several skulls, the last relics

of the "rude forefathers of the hamlet."

Other buildings in New Georgia which deserve note are the piers, both stone and wood, which, with turtle ponds, may

usually be found abreast of any seaside house.

The wooden piers are very temporary affairs, a framework of light strong branches stuck in the chinks of the reef, and lashed with creeper; but the others are formed of coral-stones off the reef built up, but without mortar of any sort, to the desired height. In spite of their loose construction they appear to last for a considerable time. The top is usually made flat and comfortable for walking upon, with earth laid in the chinks of the stones. Turtle ponds, formed of similar masonry,

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enclosing a small, roughly circular space, the tide ebbing and flowing through the chinks, are also constructed. At Munggeri there was a house built on a masonry platform a little distance from high water mark, which was quite surrounded by the sea to a depth of 2 or 3 feet at high tide.



CANOE HOUSE, MUNGGERI, WITH SMALL "HOUSE" CONTAINING A SKULL IN FOREGROUND.

### Navigation.

The canoes of New Georgia are built, as in the rest of the Solomon Islands, on the Malay model, with high prow and stern post. Nothing can exceed the beauty of their lines, and carefulness of build—considering the means at disposal They are a —or their swiftness when properly propelled. most astonishing revelation of scientific art in a people little removed from complete savagery. These graceful boats are of all sizes, from that of the "one-man," of 8 feet long, to the great war canoe, or tómako, of 40 to 50 feet, which will hold perhaps thirty-five men. Whatever the size, they are all built on the same lines, and in the same manner. accompanying sketch gives an idea of the distribution of the planks and the way in which they are butted together. (In a racing canoe there are, I am informed, many more pieces than usually employed and planed much thinner; and the boat is narrower for its length than in the ordinary model.) planks are planed down to about half an inch in thickness or even less, but leaving in the centre of each a strengthening rib, which projects about three-quarters of an inch along the whole

The two corresponding planks of opposite sides of the future canoe are placed together and bent between posts struck into the ground at the necessary curve, and when each pair of planks has thus received its proper bend, the whole boat is stitched together with a three-plait of coconut fibre, or of some "bush" material, through holes bored about 2 inches apart, along the sides of the planks. The seam is then caulked with a white sticky substance (Tita, obtained from the egg-shaped fruit of the Parinaria Laurinum) by rubbing its surface with a rough piece of stone. This substance, at first white and sticky, becomes when dry, black, and nearly as solid as pitch, and makes the boat watertight. It must be kept under shelter from rain during the hardening process, which takes from a week to ten days, according to weather. The shape of the boat is preserved by half a dozen strong ribs, each cut from a single piece of wood, the central one being much stronger than the At the places where the ribs are to be secured, the mid rib of the planks is left much thicker for a few inches, and, by means of a stout cane lashing, passing round the rib and through two holes in this extra piece, the sides of the boat are kept together.



Close to the ends, where the boat is not more than 3 or 4 inches in width, the two side planks are bound together with two or more neat "seizings" of split cane through similar Both ends are pointed, and though there chocks on the ribs. is a difference between bow and stern, it is not observable to the untrained eye. There is no decking, even to the largest canoe, but the paddlers sit on small flat pieces of wood on the bottom, or raised like thwarts in the larger sizes of boats. has to be careful that these seats rest on the plank mid-ribs, and not on the planks themselves. In the war canoes there is in the centre a sort of platform of sticks, similar to those in the houses, on which to place the heads of the slain, or to carry food and other things upon; and there are also wooden crutches at intervals along the length of the boat, to support spears, fishing rods, etc.: exactly filling the purpose of "boom irons," in a naval pulling launch.

The bow and stern of all the war canoes, and sometimes also of the smaller canoes, are beautifully patterned with inlay work of mother-of-pearl, and a string of porcelain cowries is secured all the way down the great prows. On the top of the prows of the war canoes there is usually a carved figure, the commonest being a Kėsoko—to be described later—while the small canoes often have some fanciful design, such as a butterfly with hovering wings, a cockatoo, etc., carved and coloured. All canoes are invariably stained black outside, while the inside is uncoloured. Low down on the prow above the water line the head and shoulders of a "debbledebbleum" (called Totoishu) is suspended; it is so placed as to dip in the water in front of the canoe.

The function of this *Totoishu* is to keep off the *Késoko*, or water fiends, which might otherwise cause the winds and waves to overset the canoe, so that they might fall on and devour its crew. This figure (*Totoishu*) has a more or less human face, of malevolent, and extremely prognathous countenance; the nose and chin being almost at a right angle to the curious pointed head, the chin resting on his two closed fists. Just above this figure a small tablet of wood is hung. It is coloured in red and white, and has a curious resemblance to an Egyptian hieroglyphic tablet. A large canoe takes about two years to build.

The baler in the smaller canoes is roughly made of a banana leaf, stitched somewhat into the shape of a small coal-scoop without a handle; I believe that the same shape, but in wood,

is used in the bigger boats.

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The paddles of New Georgia are a good deal different to those of the neighbouring islands, having a long loom, a short broad blade, and a crutch handle. A man's paddle is a fathom long, a woman's about 4 feet. No steering paddle is used, the steersman working his paddle on either side as necessary. When underweigh, a perfect and rapid stroke is kept, the paddles are worked solely with the hands, without the aid of a rowlock. Mr. Kelly informs me that to "catch a crab," or lose stroke in a war or racing canoe is considered an unpardonable offence; and a man who had done so twice in one day was straightway landed from an expedition which was just setting out from Rubiana, and came to live on his (Mr. Kelly's) islet until the affair had been partly forgotten. The same informant also tells me that a well-manned racing canoe will keep up a speed of seven or eight knots an hour, for over an hour. I can certify that it took our steam launch, going at about that pace, two hours to catch one of them up.

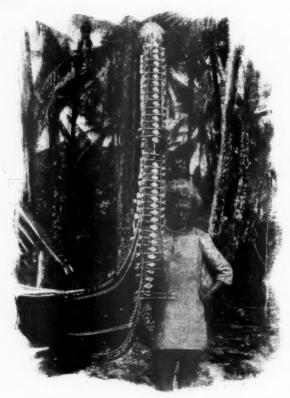
I can give no information about native sails, as sails of

European calico and cut, usually with a sprit, are now invariable, the mast being stepped near the centre of the boat.

The ceremonies attending the launch of a new canoe are often terrible, as described by Mr. C. M. Woodford, in "A Naturalist

among the Head Hunters."

I never saw any of these functions; but Mr. Kelly told me that in Rubiana, among other ceremonies, two virgins are selected—one of whom is publicly violated, while the other is "Hope," or tabooed, and is kept a vestal for fifty months: a guard is placed over her; and death is the penalty should she transgress.



NATIVE WITH CANOE, SHOWING "TOTOISHU."

#### Swimming.

The New Georgia natives, except the younger folk, are not much given to swimming or diving, unless of necessity; they swim on their faces, reaching out with one arm at a time. When diving, they jump into the water feet first, recover themselves, and then draw breath before going quietly under. They remain under water without distress for a long period. I never timed one, but I should say that a minute's duration was quite an ordinary time to stay under; and they will keep coming up after such an interval for a breath, while working under water, and immediately dipping under again while picking up fish blown up with dynamite, gathering pearl shell, or as happened to me once, clearing a rope which had fouled the propeller of my steamboat. I have seen them keep this up for ten minutes and more at a time, and they could probably do so for much longer.

At many of the seaside villages a bamboo "Eiffel Tower," is erected to a height of 20 to 30 feet on the deep water edge of a fringing reef. The youngsters climb to the top, and then jump off face downwards with a yell, with arms and legs all spread-eagled out; but just before reaching the water they straighten up, and go in perpendicularly, with feet first, and arms close to the side.

## Weaving and Basketwork.

I believe the art of weaving to be quite unknown in New Georgia. I never saw nor heard of its practice, but basketwork of the flexible variety is common, some villages having a monopoly of the trade. I regret I can give no description of the manufacture, never having seen it done, but the baskets are almost always small and circular, without handles (some have flexible handles woven in after the completion of the basket), and sometimes ornamented with a bunch of the strands hanging in a circle from the bottom of the basket. native names of two of the materials are mare and hengi.) Baskets, are, as a rule, of one colour; but patterns in red and buff, of a geometrical design, are quite common, and indeed the plain one-colour baskets are usually plaited with a pattern of the same colour in the stitching. The red staining is done with the seed of a big tree, common enough in some parts of the bush; which produces, on pressure, a bright scarlet dye (Mbusa).

These baskets are almost solely used for containing the lime and betel, pipes, tobacco, fish-hooks, shell rings, and the hundred other unconsidered trifles that a New Georgian invariably carries about with him. It is like a schoolboy's trouser pocket for variety and uselessness of its contents, and is the first place to hunt in for "curios." The baskets are slung over the shoulder by a cord stitched or woven, as before mentioned, into its opposite sides. They vary in size from about 15

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inches to 5 inches in diameter, and from 10 to 5 inches in

depth.

The lave lave, or shields, are also made of basketwork. In New Georgia as far as I could discover, these are made in one village only—Pondókona—and are now exceedingly difficult to

procure, at least we found them so.

They are of a long elegant shape, and so strong and closely woven that they will easily turn a spear thrust. The same odd pattern appears on all of them, stained in black after the shield is made, and not woven in at the time. It is carried with the smaller end up by a padded handle at the back, and the handhole is often further protected by a piece of turtle shell, or several pieces of a large leaf, stuck between it and the back of the shield. There is a small feather plume stuck into the top.

In the other Solomon Islands beautifully fine plaited work in yellow and red appears on the spears, combs, and other articles;

but I saw none in New Georgia that was indigenous.

For gardening purposes, or the carrying of pigs, or coconuts, a coconut leaf, with the fronds plaited up, is employed; these cut into two halves by splitting the mid-rib of the leaf, are also scattered about in the huts to sit on, or to form partitions, etc.

## String.

String is made of materials found in the bush, and is both three-ply, two-ply, and three-plaited. It is not spun into yarns, but just rolled on the thigh, "hove up" into string, and then given the reverse motion to keep the lay taut. It is of all sizes, from about one inch in circumference, which is used for turtle nets, and is stained deep brown, to a fishing line so transparent and delicate that it looks like the finest gut, and is used

for catching small fry with.

Nets.—The turtle nets are made with a needle which is just a long shaped reel holding the cord, and the mesh is a flat piece of wood almost always ornamented with a carved bird. The hitch used in netting is exactly the same as ours—not the "slippery" one. The net is weighted with stones, which have a hole bored through them, and the floats are joints of bamboo, or lumps of wood with a "debbleum" kneeling or squatting on them Occasionally they assume a conventional form, which is called pepele, or "butterfly."

Nets are made of all sizes of mesh, the turtle net being about a 6-inch mesh, while the nets which are sometimes used in place of a basket for carrying betel and lime, etc., are of fine strong white or brown twine, and with a mesh about the size of a

drawing pencil.

# Pottery.

Pottery is, so far as I know, unknown in New Georgia; nor have I either seen imported ware from other islands, or heard of broken pieces that had been dug up.

Probably this art has never been practised.

## Dyeing.

The favourite colour is red; used to stain basketwork, carved work of canoes, etc.: it is procured from the pips contained in the nut case—very much resembling a beech nut, which comes from a large tree in the bush of the native name of *mbusa*. A bright blue is obtained from the wild indigo, which is bruised up with lime and water, and is used in dyeing bark-cloth.

There is a yellow colouring, also obtained from a plant. I am

unable to say of what species.

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Black is obtained from wood-ashes mixed with water; a better staining is procured from a particular black clay, known as noti, which is found, as far as I know, in one place only, near the head of Piongo Ombo (Ombo River); and is used universally for staining the teeth black, as is customary among them.

# Stone Implements.

I never succeeded in procuring any stone implement in New Georgia, but Lieut. Munro, one of our officers, discovered a broken club-head on Kulambangara Island—now in the Oxford Museum. They have probably all been long ago sold to traders and others. The native drills all have now-a-days a piece of an old triangular, or rat-tail file as a borer. Formerly, no doubt, this was of stone or shell. A mortar, made of a volcanic water-worn cobble-stone, is common. It is used for bruising nuts or any hard food to a suitable consistency; a specimen of this also has been deposited in the Oxford University Museum.

# Machinery.

The native drill is, I suppose, the only article in use in New Georgia to which the term "machinery" can be given. It consists of a long spindle of areca-nut palm, varying in length and diameter with the size of the borer required to be used, between about 18 inches and 2 feet in length; the upper end is notched, the lower is recessed to take the borer; which, nowadays, is almost always an old sharp-pointed file: 4 or 5 inches above this, a rotatory fly-wheel is placed. This is formed of a flat disc of stone, about 4 inches in diameter, and an inch thick. Motion is produced by a cross arm with a string attached to the ends, the bight of which lies in the notch before mentioned; and the twisting and untwisting of the string round

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the shaft causes a rotatory motion to the borer, first one way and then the other. This cross piece is quite separate to the spindle; it travels up and down on the side of it, and there is no hole or notch in it for the spindle to go through, or rest in.

## Fire. (Sec Plate XXXV.)

Fire is made by friction with a stick in a long shaped groove. A dry, well-seasoned piece of wood is selected, very commonly the flat board used as a canoe seat, and a small piece of equally dry wood—a splinter of deal does well enough—is sharpened for the stick. The point thus made varies a little in various parts; but the most usual is with the upper surface flat and a

point bevelled-up.

A great deal of the art of fire-making rests in a well cut point, neither sharp nor blunt, and with the facets underneath at a correct angle. It is necessary to squat in a certain manner on the piece of wood in which fire is to be made; that is to say, with the left leg stretched out, and slightly bent, and the right foot over the wood and under the thigh of the left leg; so that the right leg lies flat, and sharply bent at the knee. The body rests on the end of the wood. This position was The fire-maker having pointed out to me as important. sharpened his stick proceeds then to cut off a few outside shavings from the large flat piece of wood he is sitting on, so as to get a true and clean surface, about 6 or 8 inches long, in which to make a groove. He then seizes the stick, which must be held closely pressed against the under surface of the right hand, crossing it diagonally, somewhat as one holds a pen. The left hand should lie on top of the right hand and give an extra grip with its thumb, over the right thumb grasping the The fingers of both hands must be extended and the "business" point of the stick should protrude an inch or so beyond the fingers. This position of the hands is quite essential to the proper production of fire, and much care is exercised to seize the stick in exactly the proper method, at the proper spot, and to keep it at a proper angle with the flat wood.

The stick being properly arranged, the fire-maker proceeds to rub the point backwards and forwards on the flat wood; carefully varying the angle of pressure by raising and lowering the wrists, until a groove 3 or 4 inches long is formed. The motion begins slowly, and as it continues, the groove gets blackened, and a small heap of fine, dust-like shavings collects at the further end. Now is the time to quicken up; the seizure of the exact moment being entirely a matter of practice. A little thin column of blue smoke is soon seen to arise from the wood dust, and then another critical moment must be seized—

also learnt only by experience—to cease the frictional motion, and to blow gently on the slightly smouldering wood-dust. One hand must guard the tinder from blowing away, and if the breath is properly applied, the smoke from the little black heap gets more and more, till finally, all the wood dust can be seen to be red and burning. A few little dry chips placed on it soon catch alight; and the production of fire is complete. If proper attention be paid to position of body and hands, the learning how to produce fire does not take long. I did not proceed with my lesson in the art for long enough, but all of us who tried very nearly managed it, and one actually got his tinder to burn; but not being experienced enough in nursing the young flame, it died out again.

So far as I saw and know, there is no religious idea with regard to the production of fire; any one who can may make it, and European matches (*ikuchu pindala*—fire strikers) are very much preferred to friction as a means to procure it. An *ikuchu hope*, or sacred fire, is made on some occasions, to be described later, and the remains of them may be seen scattered about in all sorts of odd places in the bush.

# Drawing, Sculpture, and Ornamentation.

Although there is no system of drawing which in any degree exhibits an idea of "writing," the arts of drawing, sculpture, and ornamentation are wonderfully common in New Georgia. In any village one man, at least, can always be found skilled as a carver; but the majority seem to be possessed of this faculty in a moderate degree. There is, however, in drawing, a noticeable poverty of subject; the specimens which accompany this paper pretty well exhaust their list of representations—canoes, men, toto ishu, frigate-birds, porpoises, alligators, and sharks—all of which are figured more or less conventionally.

This particular drawing was of course done with pencil and paper for our edification, but their usual appliances bring the resulting design more properly under the heading of "Ornamentation," as they are scratched with a sharp knife on a piece of bamboo or a lime gourd—and blackened with charcoal from a fire or whitened with lime from the white pot

a fire or whitened with lime from the *mbinu* pot.

There is not the slightest notion of perspective, and all objects are shown in profile. Occasionally symmetry is introduced, or, any way, attempted, and pattern is commonly produced from highly conventionalised figures of frigate-birds and fish, often showing great skill in the adaptation. I fancy there is no idea of drawing from nature, but though the figures produced are not absolutely copied from another man's work, still all are drawn more or less in the same manner. Conventionality

however, has not yet reached such a point as to render the

subject depicted indistinguishable as a natural object.

I have sent to the Oxford Museum a specimen of a native drawing by one man, which was deliberately intended as a portrait of another. It was drawn as a sort of joke, in imitation of one of our officers who had just made a recognisable portrait of one of the natives, which had pleased them a good deal, and of which

they fully appreciated the likeness.

European drawings are a great source of pleasure to them; they seem to quite understand them, and took special amusement in a political cartoon I once showed some of them, in which the figures represented an eagle and a snake with human heads. Photographs of people and places also are easily recognised; and those of some spots in and near Rubiana with a portrait of a man, taken by Mr. Woodford, the engravings of which appear in "A Naturalist among the Head Hunters," were recognised and named.

The colours used in painting carvings are black (charcoal), white (lime), and red (of the material before mentioned), blue (obtained from indigo—or also washing blue from the traders);

and, rarely, yellow.

As regards the drawing of maps, I am given to understand that a framework was procured by Captain Stopford of H.M.S. "Curaçoa," in one of the Solomon Group—not New Georgia—in which shells large, and small, represented islands and harbours in the vicinity; and strings connecting them showed the course to be steered in order to fetch them. I think there is no idea of a graphic representation, though some men I once showed the chart I was employed upon fully understood its convention and purpose after my explanation of it; and pointed out, quite correctly, to other natives where the various islands, etc., were situated on my chart.

Carvings are done both in incised lines, raised pattern work, bas-reliefs, fretwork, and sculpturing on the round; bas-relief being the least common. Specimens of all have been sent by me to the Oxford University Museum. A great distinction is made in sculptures of "debbledebbleum" (manggota) and men (tinoni)—these latter are produced almost solely for trade—the Manggota being almost grotesque in proportion, with the face a great deal too large, the top of the head terminating almost in a point surmounted with a sort of cap (representing hair); while thenose and lower part of the face are almost doglike in prog-

nathity.

The representations of men (tinoni), on the other hand, are not at all badly proportioned, and show a very fair amount of observation in anatomy; the head and face are neither disproportioned,

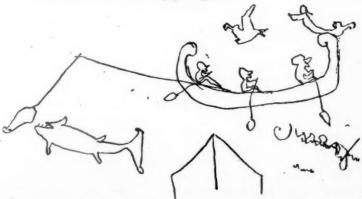
nor distorted. It is hard to say whether the frigate-bird, shark, porpoise, and alligator are considered as totems in New Georgia, out they appear in sculpture more than any other forms. On the prows of canoes a carved representation of a butterfly, with half spread wings, is a favourite design, and at Peava I saw a beautifully carved figure of a cockatoo on one canoe, coloured

with European paints.

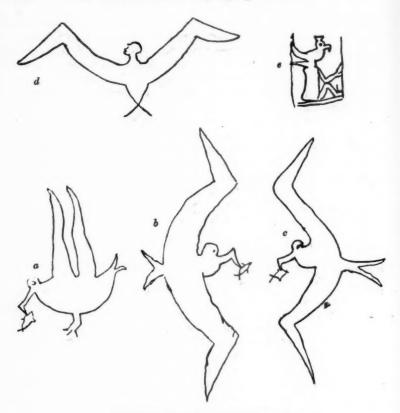
Ornamental patterns have reached a high degree among these savages, almost every article in daily use has some slight pattern on it; the tendency is towards conventionalised forms of frigate birds and porpoises; while in geometrical designs the favourites are triangles, and squares in double lines, the outer of which is commonly "feathered" with short oblique lines. The extremities of the outer line are not joined, but curved back.

On decorated canoes the mother-of-pearl ornaments are cogwheeled circles, { lines formed by a succession of ZZ, and a curious comb formed of a number of pieces of shell in this is tied to the inner sides of the pattern, The outer edge of the prow, from prows, from top to bottom. the white plumed figure that sits on the top, to the Totoishu at

the water line is ornamented by large pure white "porcelain" cowries, secured transversely. Between each of these a piece of small bamboo, wound round with red turkey twill, is tied, also transversely. Each piece of bamboo is about 6 inches long, and has a small tuft of white cockatoo feathers at either end. At nearly half way down the prow there is always a small gap in the shell ornaments, but I could never discover the reason. I noticed the same on several canoes, all similarly adorned. The whole effect is exceedingly elegant.



SPECIMENS OF NATIVE DRAWINGS. I. Shark-fishing.



SPECIMENS OF NATIVE DRAWINGS. II.

a. b. c. Three frigate-birds (Mb·lema); d. Frigate-bird with man's head (Kiririu); e. Man with frigate-bird's head (Késako).

#### Food.

The variety of food in New Georgia is singularly small, even for Oceania. Yams are scarcely grown at all, and are very small. Taro, sugar cane, sweet potato, and the Cape Marsh potato (grown principally in Russell or Cape Marsh Islands closely adjoining New Georgia, and nearly approaching the Irish potato in flavour and flouriness), exhausts the list of vegetables under cultivation. Bananas, papaws, and a poor species of bread-fruit are the only cultivated fruits; the "Kanaka apple" and two other exceedingly nasty acrid fruits, whose native names I cannot give, (I believe one to be a species of mango), grow wild; as does also the kanary nut (maria), and a nut (ndinggi) which grows on a small tree with a big, fleshy

uneatable (?) fruit; twenty or so together on a long stem. The

coconut is, of course, the main staple of existence.

Of animal food, it might be almost said that there is none. Pigs are extremely few, either wild or tame, bullocks and sheep they have never so much as seen—two skinny specimens of Queensland sheep we had on board the "Penguin," occasioned considerable consternation to some of them who saw them for the first time—and there are but a very few fowls. The only meats that they get are opossum (cuscus); which when broiled is excellent, though rich eating; turtle, frigate bird, pigeon; the big monitor lizard (only eaten by "man-bush"), coconutcrabs, land crabs, cray fish, and cockles; and finally, the chief support of life (beside the coconut), fish, which they catch very cleverly with nets, rod, line, and hook. They are very fond of European tinned meats, known generically as bulumakau; and a small boy's heart is sooner reached by jam, than even tobacco.

I cannot say for certain, but believe that no restrictions are placed upon kinds of food to any one, chief or women; and it may be cooked by anyone, though usually by the women. One whole tribe, in the neighbourhood of Ngarási, will not eat pigeon; it is hope or forbidden to them, and no one, anywhere,

will eat either shark or crocodile.1

There are but two systems of cooking, one by broiling and second by baking in an earth oven. A sort of pudding is made with kanary nuts, which are stamped into flour by men with poles, in a long wooden trough hollowed out of a log. There is no trace of "kitchen middens" anywhere; the refuse of food must in any case be small, and what there is is consumed by the dogs or pigs.

There are no sorts of manufactured drinks made, coconut milk and water (which is kept in coconut shells) alone are used. Neither palm wine nor kava are known. The natives however take very kindly to tea, coffee, and cocoa, if well sweetened. Alcoholic drinks are exceedingly repugnant to them; those only who have been employed with traders and other whites will take them; partly I think in bravado.

Meals seem very uncertain affairs; there is only one regular one in the day, in the evening. I believe the women eat separately after the men have finished. In the men's basket you will usually find a piece of fish to carry them through the day; but the universal and eternal chewing of betel probably takes away

<sup>&</sup>lt;sup>1</sup> I may mention here that wild ginger (called *minila*) is also eaten, or rather chewed; the presentation of a piece to another person signifies your declaration of "war" against him: and for this reason it was some time before we could induce the natives to eat any of our gingerbread biscuits, until assured we meant them no harm.

most of the desire for food; and a small piece of coconut quite suffices for both breakfast and lunch.

Feasts are held on all occasions of joy or grief. As regards the former I have no information; but I witnessed one of the latter, the last of a series of three in honour of a dead chief, by name Savo.

A large pig was chosen, and, though I did not actually witness the event, it was explained to me that it had been killed by suffocation; its nose having been tightly tied up with a piece of creeper. It was then placed on a sort of large gridiron made of boughs, and a small fire lighted underneath; the skin and hair thus becoming singed, were scraped off by two men with coconut shells. When completely scraped, the pig was taken off the fire, opened up, the entrails removed—edible parts alone being retained—and the whole pig divided into sixteen portions, the head and the hams forming one each. These (with the exception of the hams, which I bought for our camp) were then placed, without further dressing, in a hot-stone oven, and cooked.

Meanwhile, a party of eight or ten young men were stamping maria (kanary) nuts, which had been brought to the feast ready cracked, the kernels packed in large baskets holding thirty or forty pounds; and were soon formed into a flour, which, with coconut milk, was cooked into a pudding to accompany the pig. There were men from all parts of the district; and their wives, while the cooking of the pig was proceeding, sat in the shade in a small canoe house, placidly chewing betel. At an order from Bera (the chief giving the feast), however, they all came out into the sun, in order to be photographed.

Some of the canoes left that night for their homes, so the fun was not very fast or furious; the others had all left before the following sundown.

#### Cannibalism.

Cannibalism is undoubtedly still practised in New Georgia, but I can give no particulars; as if it was done during our visit, it was in the utmost secrecy. I am informed (by a trader) that a special ebony fork, 6 feet long, with three prongs, and inlaid with mother-of-pearl, is used; and that death is supposed to follow any one who takes a piece of cooked flesh in his fingers to eat it. The existence of such a fork is utterly denied by the natives and the description as above seemed quite novel to them. Natives I have asked say that they never eat man, but that "man-bush" often does so still. Mr. Guy, a trader we had known during our 1893 season, was killed and eaten—his head alone being recovered—shortly after we left his vicinity. He was said to have been sacrificed in connection with the launch

of a new canoe at a place called Ndsai (?), and his boat's crew, with one exception, shared the same fate. Two great friends of ours from Munggeri were, we afterwards heard, noted cannibals, who frequently went on raids into the adjoining bush to satisfy this appetite. They were certainly, so far as we saw, otherwise, two of the best dispositioned men we had dealings with, and I had them constantly at work for me. My information was from a small native boy, so is probably true.

## Religion and Taboo.

It may be safely said that there is no "religion," strictly speaking, in New Georgia. A series of good spirits, or hope, live in the sun, the moon, and the stars (according to the Eastern natives); one of them Ponda, or Pondo, who is their special friend, lives in the shooting stars; while another one, also a "good fella," lives in the ground. (Note.)—Another name obtained for this person was Sondo, and it seemed to refer also

to the abiding place of souls.

The following is the belief regarding a man's entity, and its disposition after death. Each person consists of a body, what may be roughly termed a spirit, and a soul. The spirit is one's reflection—as in still water or a looking glass—the soul is one's shadow, as thrown by the sun, or artificial light; the former is evil, and the latter good; each person, supposedly, being a combination of both, though by what ethical laws the discrimination is made, it would be hard to say. I was a good deal interested to hear the year after I obtained this information from absolutely untampered sources in New Georgia, and in their native language, that a precisely similar belief occurs in Fiji. It seems to me a very remarkable identity, and it is strange to find it also in such an unlooked for field of thought, among either of these half-savage races, as that of metaphysics. At death, the soul, or shadow, goes to live with (or at) Ponda, the good spirit, nobody knows exactly where; but a man may meet his wife (his other relations as well) in this place, while the spirit, or reflection, remains on earth, and lives principally in the bush, where it will fall upon anyone venturing near it, and kill him if it can. It also comes in the form of a ghost, to frighten people at night in their houses, tapping, tapping, and inspires men to do bad actions. I had all this information at word of mouth, mostly in the native language; so it may be relied on as being original. After a period of years, this "spirit" gradually fades away, and eventually dies altogether. I should add that there is but one name for either soul or spirit: they are called manggo manggo alike.

Besides these human emanations, however, there is a wide

belief in "debbledebbleums"—called collectively managota, and described as tingitonga chiena—something evil. There are those of the sea, and those of the land. They are not looked upon as absolutely spiritual, or supernatural, but as having a real flesh and blood existence, though endowed with power over the affairs of nature. Probably I have not heard of all the manggota that are supposed to exist, but one marine monster, very frequently depicted on the prow of canoes, is called Késoko. I have sent several specimens of carvings of this creature to the museum, and no one can see it without being struck at the fortuitous, but none the less striking, resemblance to an ancient Egyptian mythical being. The figure consists, roughly speaking, of the body of a man, seated, with his elbow on his knee, wearing a big ornamental collar, and surmounted by the head of a frigate bird; both head and body largely conventionalized."

The figure also wears an ornamented waist cloth, and is always depicted in exact profile, and highly coloured. Indeed, from his profile view having always been presented, and thus only one leg and one arm able to be shown, the belief now is that Késoko has but one arm and one leg. It is said to live in the sea, and to be able to command the winds and waves, to capsize canoes; and when this is accomplished it falls upon the occupants and devours them. The natives say that it usually lives on fish, that plenty of men have seen it, and that at almost any time it may be heard in its home under the edge of the coral reef, blowing out the air from its lungs (the air sucking and puffing through the holes in the reef). His power is combated, however, by Totoishu, a small figure of a man's head, supported on its two clenched fists, the face of extreme and doglike prognathity, generally painted black, with the features emphasised by mother-of-pearl inlay work. It is always tied to the prow of the canoe at the water line. (This same figure is exactly reproduced, with similar functions in Florida, where it is called titinoni, a word that in New Georgia might perhaps mean "belly of a man.") I was never able to discover if Totoishu were a land, or a water being.

I now come to the land "debbleum," which is usually spoken of as Manggo (without the reduplication of the word). This subject seems to me to be one of great interest, and if it is, as I believe, the rude native description of some rare, and, to them, terrifying creature, it carries outside Ethnology into the domain of Natural History. I will give five descriptions of the creature, which I took down at word of mouth, in their own language, from men, sometimes spokesmen of parties of visitors,

of whom I had inquired for information.

(1) "In the bush, near the mountain top, lives Manggo, a

huge creature with arms and legs as big as coconut trees, and hair all over his face. No man has seen one close, because if any one goes near enough to it, it kills and eats him, and so he never returns."

(2) "There are two kinds of *Manggo* in the bush, one good, and one bad. The former, if you see it, makes you fall sick; several men have seen it, I have not; but it was of the height of a man. The bad one has sharp (*ngachundi*, like a spear point) elbows, shoulders, and knees; and those who see it die of the effects."

Lipu, a friend of mine, who had seen Manggo in the bush above

Vaholi (opposite our camp), told me as follows:-

(3) "He was about as big as a man, with an enormous head of black hair, and there was hair over all his face as well. He had a long nose and the lower part of his face stuck out like this (illustrating with his hands, making his mouth and chin protruding like a dog's face). His body was covered with light coloured hair, he had no tail, and he had hands for feet: all his hands had large talons. He lived in a hole in a big tree, and when I (Lipu) saw him, he was going along by his hands by the creepers, from tree to tree. Manggo do not eat man, but if a man sees one, he get sick; they have a very unpleasant smell."

Lipu also told me in reply to my question that he had himself been ill after seeing this *Manggo*. This, and an inquiry as to whether it had a tail or no, were the only questions I asked him. All the remainder was given out straight, without any promptings. This man had once seen a small monkey on board a schooner (in reply to my question), but apparently did not at

all connect it with a Manggo.

(4) "There are three sorts of Manggo: Chinoko (dark coloured), Hewa (light coloured), and Orawa (coloured, i.e., red or yellow). Some men only get sick, but others die on seeing one."

(5) Another man who had seen one—I did not get his name—said that it had black hair all over; that Manggo have been known to take big stones and puava (soil, generally) up into the trees, and drop it upon men's heads. Sometimes they come down to the salt water.

In confirmation of the last statement, I will only say that one of our officers, Lieutenant Waugh, told me that he had seen a strange large hairy creature, with a head like that of a dog, lying on a bough in the bush near the water line; but that he

did not get a proper view of it.

I should remark in conclusion that the bush in the parts where the *Manggo* are stated to have been seen, is certainly not inhabited by man. There are a few coast natives, who have one small bush refuge-village—the rest is undisturbed and trackless forest, without smoke or sign of life at any time.

While I am on the subject of strange animals, I may remark that the natives report a small rat (apparently) called *chichiunggu*, of which I have sent a carving on a canoe prow to the museum.

It was explained to me, by bodily illustration, that it hopped like a kangaroo, and was very small, and difficult to catch. It lived away back in the bush, and seemed to be thought hope, or sacred.

Other hope creatures are kakaka, the great fish eagle, totoa (caprimulgus nobilis, a night-jar that makes no nest, but lays its eggs on the beach), and to the Ngarási natives only kuru kuru, the ordinary grey Solomon Island pigeon. This latter may be shot by these people, but not eaten. The shark and the crocodile are both also hope, because, as one man explained to me, they eat man. In Rubiana they may not be even touched; but in the eastern part, though they may be killed, they must not be eaten. I was informed, however, by Mr. Kelly, of Rubiana, that a man of that district, whose child had been carried off by a crocodile, had had the hope removed off these creatures, as far as he was concerned, until he had killed one hundred. A crocodile usually appears roughly carved, in connection with the figure on the house post before mentioned.

## Hope Altars and Graves.

Once or twice in the year, after a feast, food is placed out for the hope, or spirits, in certain places in the bush. A small altar, surmounted by curiously shaped coral stones, is built, and on it are placed all sorts of useless and broken articlespipes, tomahawks, knives and rings—near it is usually a small circular place of stones where a fire is lighted and food There was one such on an island on which we were camped, and when I inquired what the place was-thinking it a grave—I was told by Bera, the chief, that it was a hope which he had himself made, and he seemed surprised at my visiting it; as a native who so much as saw the place after it had been first made, would get sick and die. Near the big altar was a small flat stone on the ground, surrounded by still smaller ones in a border. It is necessary to discriminate between hope altars and graves. They much resemble one another, but the latter may be sometimes just a walled in place instead of a heap; and if it is at all recent, and its occupant lately possessed of wealth, it is common to see an article of value deposited on it-a shield, a whale tooth, or shell rings, some broken, some whole.

A carving of a hope may be seen stuck in the ground at almost any village in New Georgia. Although these natives have a very good idea of carving the human face or figure, the faces of these are so roughly made as to be almost conventional, the eyes, mouth, etc., being depicted by pieces of mother-of-

pearl or shells. An ugly, forbidding, and foolish face is generally the result, with wide staring eyes, and a long pointed chin; beneath which lie two entirely disproportionate atrophied arms, growing from the ears; from which, downwards, they follow the line of the chin. There are no other features or limbs. This figure, which is almost invariably made of a fern-tree stump, stands in a small heap of coral stones, decorated, as usual, with broken pipes, etc. I could discover nothing of the functions of this hope, but presume that, like the hope in the house, it is a sort of protector of the village (as the others are of the individual houses) against Manggota.

## Other Hopes.

The preventive against trespass and robbers (of coconuts, chiefly), is the putting up on the spot of hopes. There is probably a separate proper name for them, but I could never obtain These fulfil the double purpose of warning trespassers or thieves that the place is hope, or forbidden to them, and also of carrying mysterious punishment if the warning be disregarded. There are two descriptions; one bringing death on the committer of the trespass or robbery, the other sickness. A death hope consists of single sticks, 3 or 4 feet long, stuck in the ground at the landing places or entrances to the coconut plantation, or garden desired to be protected. The top of these sticks is split for a short distance, and in the cleft thus formed dead leaves, a piece of fern root, and a wisp of grass are placed, surmounted by (rarely) a skull, a piece of ants' nest, or a large shell: either of these constructions informs the intruder that he will wither away like the grass, and become as dead as the original owner of the skull, as the ants that once lived in that piece of nest, or as the fish that inhabited the shell, according to the emblem of mortality exhibited. A "sickness hope" is similarly constructed, but is surmounted by a piece of coral, instead of the other articles. A curious description of hope, that I saw in the bush on the road to Vonggi, was erected against the stealing of opossums from a certain man's property, and was made of long tree-fern stalks, secured in the form of a slight post-and-rail fence, 12 feet long, and 4 or 5 feet high, bound up with creepers. At the top of one end-post was a small cleft stick, supporting a piece of twisted twig, vaguely resembling a bird or an opossum.

Another description of hope that I saw, was made by putting a festion of a certain creeper across the entrance to the coconut grove, with pieces of the same along it at regular intervals, hanging perpendicularly down, and secured to the ground. I had two natives with me at the time, and at first they did not

like to land on the islet thus marked, as it had been "hoped" by their chief, Bera. They did land eventually, however, and one of them went under the hope barricade, picked the central tiny shoot of a large fern, in appearance like the English hart'stongue fern, from which he nibbled a little bit, and then handed it to the other man, who did the same. They assured me that now the hope would have no effect—so long as they did not steal any nuts. In the eastern districts I was informed that a chief only could make a hope; in Rubiana the possessor of any land can do so, and here the effects of the hope, whether robbery has been intentional or no, can be frustrated (Mr. Kelly told me) by the payment of twenty shell rings (Hókata), no more, and no less, to the proprietor of the coconuts. A man once took advantage of the owner of a certain coconut grove being away, to go over, with his wives, and rob the entire grove of several thousand nuts; all that he paid the proprietor, however, in hope compensation, was the twenty rings, which of course by no means covered the cost of his depredation.

The removal of a hope is the occasion (in the last district) for

a small feast.

### Names.

I have found that the New Georgia natives, particularly those who have had little contact with white people, are shy about telling one their personal names. In any case few of them care to say it out in a loud voice, and it is always best to ask the name of a man from some one else standing near. I have tried this repeatedly, to establish my opinion on the subject, and have no doubt that there is some "superstition" regarding it, though I was never able to discover the origin.

I will quote one very marked case of a lad that we had with us living in the camp, doing odd jobs, and teaching us language etc., of whom, when he first came to us, when I demanded his name, he, after much half-ashamed hesitation, said it was Ndóngondógona, and by that name (usually shortened to the second half) he went among us for three weeks or more. had never noticed that the other natives named him otherwise, until one day I heard him answer to the name of Kúmiti, being thus hailed by another lad; and on inquiry, I discovered that this was his real name, while the other was purely fictitious. Later on still, I discovered that Ndóngondógona meant loin-cloth, and then fully appreciated the shouts of derision that poor Kúmiti had to undergo, when I then told the other natives that that was the name he had given us as his own. I suppose we had upset him so much at the time that this was the first that had occurred to him to give us.

## Evil Eye.

The Evil Eye is strongly believed in; and is, I am told, one of the most frequent causes of fightings and head-huntings.

During part of the survey our camp, for about three weeks, was in the village of Bili. On our first arrival at the spot, a short time before we came to camp there, we had found the place full of people: it was now, on our second visit, absolutely deserted.

The plantation whence they got their food had been allowed to fall into a jungle, the houses were left exactly as they had been slept in the night before the sudden exodus, but otherwise, except that the daily showers had washed the paths a bit cleaner than usual, there was no change in the appearance of the place. On making inquiries at the neighbouring village of Totelavi—on an islet not more than half-a-mile distant—we discovered that about two months previously the chief, one Ngetu, had died, and that, in consequence, the whole of the inhabitants had cleared out, and gone to live elsewhere. On pressing our informant for a reason, he said that whenever the chief of a place died the people of his village went away to live somewhere else. Subsequently I was assured by Mr. Wickham, a trader of long and good standing in New Georgia, that this was really often the case, and that he knew of several villages which had been thus deserted on the death of the chief. does not always occur, however, for I know of one instance in the adjoining village of Peava where the chief, Rákato, had died and no change was made.) We heard afterwards that there was a special reason for the desertion of Bili, which was that as two or three old people had died somewhat rapidly one after the other, and finally Ngetu, the chief, an elderly man, had done the same, it was declared he had succumbed to the effects of the Evil Eye; and further, that the wife of a man of Peava (a brother of the chief Rákato) had cast it on Ngetu. The inhabitants accordingly deserted the place, while some of the younger men "laid" for the woman who had evil-eyed their chief, and eventually succeeded in murdering her. fight between the two places was thus confidently expected, which I have a shrewd suspicion our presence in the vicinity alone prevented. The unhappy widower took refuge with Mr. Wickham on board his trading ketch, until the troubles should be over, and stayed there for more than two months.

At the end of that time we went and camped in the deserted village, and in some way, it seems, exorcised the "debbledebbleums" who otherwise were occupying the place, for on Mr. Wickham's return towards the close of our season, still with the widower of

the evil-eyed lady on board, some old Bili folk went off from Totelavi to the ketch, assured him of his safety, and announced that on our departure they intended to go back again to live in the place; and as far as I know the place is now again inhabited.

# Hope Districts.

The summit of Vonggi, a highly remarkable peak which stood up 1,600 feet like a huge thumb, was considered hope, or sacred. I was informed that a large fish and a gigantic clam shell lived on the top, who would kill an intruder. The summit of Ivorai, another prominent hill in the Ngarási district, where our officers made a trigonometrical station, was also sacred; there was a large ring of big stones surrounding the summit, with every appearance of great age, inside of which none of the natives could be induced to go. There was a similar building on the sharp and prominent summit of Márovo Island, also hope, and forbidden to be trodden by natives.

Kicha, a small island off the coast, the last of the New Georgian group to the south-east, is also sacred, and no woman is allowed to land on it. A hope called Mateava lives on it,

but what his functions were I could not learn.

There was just off the coast, near Munggeri, a small islet called Olowotu, which I was surprised to find, on landing upon it, to be altogether artificial. It was entirely built up of large coral stones on the flat fringing reef surrounding the shore, to which I found traces of its having been once joined by a causeway, perhaps 30 yards long. The islet was roughly rectangular and at the shore side of it a sort of square, heavily built arch had been erected. It was just possible to walk beneath the strong beams of wood that supported the "masonry," fully 4 feet deep, that formed the crown of the arch. I climbed on to the top, and there found several carved figures in coral stone, representing human heads manggota, and mbélema (frigate-birds), all about life size, but impossible to remove without discovery from the natives. There were also large numbers of both éringi and hókata—the shell rings before described-with old tomahawk heads, and so forth. A few bushes grew on the lower part of this strange place, and one small coconut tree, to which I was intending to affix a surveying mark, but that Raku Vingguchu, the King of Munggeri, besought me not to, as it was nusu hope ngeténa, "a very sacred island," so I did not again so much as land on it.

A somewhat similar place, though not so elaborate, occurred on the sea-side of the barrier chain of islands and islets surrounding this part of the coast. Several altar-like erections were built out on a slightly projecting coral promontory, and were full of human skulls, rings, tomahawk heads—broken and rusty—and old pipes. We collected about fifteen skulls (twelve of them are now in the hands of Dr. Garson) and several rings, without detection. There is a similar sacred place off the

Ngarási district.

There are also whole large bush districts, beside the mountaintops before mentioned, which are, by general consent, considered hope, or tabooed; and under no consideration will a native walk there. How they have all become so, and for how long the taboo lasts I cannot say; but I can give one instance which came under my notice of a small islet in a rather remote part of the lagoon, which, while all the adjoining islets were covered with bush, was entirely grown with coconuts. several natives with me in the boat at the time I first saw it, and as I desired to land on it, to erect a surveying mark, I steamed over towards it. Immediately there was an outcry that I could not land there, that it was hope, and so forth. However, as it was exceedingly important to the survey to do so, and as I said that only white people should land, and that black men's hopes could not affect us, they conceded so far as to allow us to go by ourselves. I found the islet in the wildest confusion: the older coconut trees had cast down their nuts, year after year, unheeded, and had formed a soil, these shells and husks only, at least 3 feet deep, in the midst of which a perfect jungle of sapling coconut trees was thrusting upward. I set up my mark on a small outstanding rock on one side of the islet, having cleared away about fifty old and new copra nuts to arrive at the hard coral beneath, and went back to the boat. On inquiry I then learnt that some twelve years before (as far as I could afterwards judge by asking some white residents of Rubiana), the Rubiana "boys," out on a head-hunting expedition, had arrived at this islet, on which there then was a small village, and had taken every head in the place. A hope was accordingly pronounced not only on the islet, but on all the adjoining coast for a mile or so on either side, and this had been up to now rigidly maintained. I had occasion to land in this vicinity some time after, up the estuary of a mountain torrent which came down hereabouts—where we had the good fortune to find some specimens of a rare pandanus, much sought after by the Kew Gardens authorities—and to climb a hill to make a trigonometrical station on its summit, all being within the proscribed limits. That night I was bitten by a centipede, as I lay on my mattress on the ground in the tent. For over thirtysix hours I had endured a torture comparable to nothing in my experiences previous or subsequent; when, feeling slightly 2 D 2

better, but still in great pain, I went out to try and do some survey work on the adjacent coast. While thus engaged it came on to rain, and being near a village I went into the house of a man I knew slightly until the weather should moderate. In conversation I told him that I had been bitten by a centipede, whereon he seemed much amused, and told me that I had probably given offence to some one, who had sent the centipede at night to bite me—that that was what black men thought of such occurrences. When, however, he heard that I had landed at Veriverichi, the hope district, he thought it more probably had reference to that. I then asked him if he knew of anything that would cure me, and he said that he knew of something which grew in the bush that would soon do so, and that he would go and get it. I was much disappointed when he returned with only two small pieces of grass, which he proceeded to tie round my left ankle-near which I had been bitten-saying that the pain would soon "finish." As a matter of fact it was then dying away, and when my friend came next morning, Sunday, to the camp and found me up and about again, only slightly lame, he was quite sure his charm had cured me. He then told me that he was a tinoni hope, or sacred man; and I doubt if I should have otherwise found that out, as they are very shy of telling one of such qualifications.

The *Tinoni Hope* of Munggeri also revealed himself to me only under extreme circumstances. Munggeri was the largest village in our neighbourhood, and possessed a fine war canoe, in an unusually big *eruo*, or canoe-house. One day I found inside this canoe an exceedingly large and well carved toma-



"OLOWOTU," SACRED ISLE.

hawk, which I promptly began to bargain for with my friend Raku, who was king of the place. I had nearly tempted him into surrender by three kalo (whale's teeth), when a little old white-haired man dashed over at me from the other side of the house, seized the tomahawk out of my hands, in great excitement, and declared that it was Hope Ngeténa, "very sacred," did not belong to the king to sell, but to the whole village; that he was the sacred man, and it was his business to take care of it, and then disappeared in a great state of mind to hide it more securely. Raku laughed a bit foolishly, but quite gave in, and the other men standing round did the same.

### Amulets.

Almost every man wears an amulet round his neck; little children have sometimes two or three. They are called Hinili, and usually take the form of a small ring of shell, dentated along a considerable part of the circumference, a single or double frigate-bird (mbélema) fretted in pearl shell, or a lunette of the same material usually engraved with frigate-birds, etc., combinations also of a circle with fretted out frigate-birds within, are common.

These are supposed to invite the protection of Ponda, especially when passing *hope* places in a canoe.

Another form is that of a long spiral shell, ground flat on two sides, thus exhibiting the whorl and successive chambers of the helix. This is, besides, attached to canoes.

## Morals and Customs.

There is, I suppose, some sense of morality, as we understand it, in these savages, though what there is must be inherent in each individual, as there appears to be no generally recognised standard of what should be considered "right" or "wrong;" nor any law but revenge.

Adultery, stealing, and murder are privately dealt with between the offended and the offender; no one else, chief or otherwise, would dream of interfering, nor is there even a village tribunal. However, they have, of course, their notions of what a man, morally considered, should be, and discriminate easily, and by similar process of reasoning to our own, between "good fella man," and "bad fella man"—especially among white traders. Infanticide is not considered wrong, or, at least, no one will revenge it. If a mother bear a daughter, and daughters are not desired in the village, it is killed without a pang of remorse, and the same is done on the very rare occasion of twins; one is always killed, preferably the girl, if there be one. Cheating in trade is very common; I fancy they

recognise it is not the proper thing to do, but all they say is, "the more fool you not to find out I was cheating." I think it probable that they obtained this system from the white traders.

The following ideas obtain with regard to chastity in women before marriage. There is no sense whatever among them that this is a virtue, or even desirable in a girl; women and men, as soon as they are of age to do so, may have connection promiscuously, just as they desire. This is the rule from the chief's daughter downwards, the man making a payment of ten sticks of tobacco, a fathom of calico, some beads, pipes, or matches, or a shell ring to the parents of the girl; though the violation of a virgin commands a larger sum. The act must always take place in the bush; never in a house, which are reserved, or hope, to married people only. On marriage the woman is hope, and in the Eastern district I was told that sickness and death would be the result of interfering with her. I fancy adultery is not very common. At Rubiana, however (according to Mr. Kelly), if the guilt of a wife is established, she is killed with a tomahawk; to the man, whether married or single, no stain attaches. On conviction, she is given a chance to escape to the bush, and, as she does so she is fallen upon by the men of the place—her lover even assisting—and her head cloven. The same is done in Rubiana if a woman is discovered to have syphilis.

Should an unmarried girl bear a child, she generally does away with it in the bush, where she goes to hide for the occasion, and nothing more is said about it. Occasionally they keep them alive. I know of one grown-up bastard, whom no one

looked after, and who lived as a sort of slave.

The New Georgians have the same ideas of what is decent with regard to certain acts and exposures that we ourselves have; and they are sufficiently advanced to build small retiring places out on piles over the salt water; but their conversation, judging by what they will say in English before a white woman, no less than by their own usual camp-fire talk, is quite unlicensed.

#### Circumcision.

Circumcision is, I believe, not practised in New Georgia, but the natives are so noticeably decent in their costume as compared with, for instance, some of the New Hebrideans, or even the natives of the adjoining island of Malanta, in the Solomon group, that it has been difficult to observe whether its nonpractice is universal.

#### Government.

At the head of each village is a "king" or chief, who may command, if he wishes to enforce it, a certain amount of obedience and respect. The office is hereditary, the successor being often nominated by the present holder; primogeniture not being necessarily the rule, and a chief having children usually by two or more wives. The son who is to succeed is brought up to consider himself a "cut above" the other people. In war time the chief leads, but I believe the only men he can compel to follow him are his slaves; the others come if they wish it. There are also tinoni hope, or sacred men, whose whole power I have not been able to determine: a few facts concerning them have been already mentioned.

#### Music.

The New Georgian natives are notably fond of music. Their musical instruments are the flute, mouth fiddle, jew's harp (of native as well as foreign manufacture), and pan pipes. They would almost rather have a trade jew's harp, than three tobacco pipes, as a present; and would sit listening with evident pleasure to a violin, autoharp, and penny whistle, which used to be played of an evening in our camp. They appear to possess nothing resembling a drum, and the only really discordant music they produce is from a conch shell with a hole in the side; and this but rarely.

The flute is a piece of bamboo with both ends closed at a joint, and is about 2 feet 6 inches long. It has altogether only four holes; one 4 or 5 inches from one end, for the mouth, another about 6 inches farther down, for the first finger of the left hand, one in the diaphragm at the end remote from the



BOY PLAYING FLUTE. (Ivivu).

mouth, and one in the side of the flute near that end, stopped by the thumb and forefinger of the right hand respectively.

The flute has therefore a very limited scale, but its tone is soft and sweet. It is called *Ivivu*, and is largely used at

funeral feasts.

The native jew's harp (mike ivivu) is a pointed slip of bamboo, 6 inches long, which has a narrow sharp-pointed tongue cut down the centre of it. A fine piece of string is passed round the lower and wider part of the tongue; this, on being jerked, causes the tongue to vibrate, while the pointed end of the jew's harp is held pressed against the teeth after the same fashion as our own instrument. The mike ivivu has a pleasant low note. I cannot say whether it is an adaptation of our jew's harp, or of original native invention. (Vid. Plate XXXV.)

The mouth-fiddle is a piece of rounded stick, 6 or 8 inches long, slightly bent, and carrying two strings. One end of the stick is held between the teeth, and the strings are vibrated with the unused end of one of the strings, or a small piece of wood, while the left hand does the fingering. The strings are tuned about one tone apart, and only one of them is stopped; both are invariably struck together, generally giving the effect,

pretty nearly, of a triplet.

The flute and the jew's harp are nearly always ornamented,

but in no particular style of pattern.

Vocal music.—The men's singing voices are, speaking generally, high baritone; sometimes ascending to a nasal They have the habit of falsetto, but, on the whole, soft. swelling and diminishing the note towards the middle and end of each line of a song. The only times we heard singing by a company of men were during dances with shields and spears. There was no accompaniment of hand-clapping or drumming, and the general tone of the song was that of a dirge, rather than a song of battle. I append the words and music (kindly scored for me by Surgeon V. Gunson Thorpe, R.N.), exactly as rendered by them, remarking that where double notes appear they were thus sung in unfailing harmony. Another song was led by one singer, the remainder joining, as it were, in the chorus, but I was not able to procure the tune or words. could get no translation of the words here given, and am not sufficiently acquainted with the language to give one of my own. The natives used commonly to say that the words of their songs were "gammon," which is Islands English for "nonsense" or "chaff."

During our second season I was able to obtain the words of several New Georgian songs, and of one or two airs. One of these songs, named "Sitima Belapura"—(Balfour's steamer, i.e.,

H.M.S. "Penguin"), was written especially for us, and recounted the voyage of the ship through various oceans, past many (named) passages, reefs, islets, and shoals, and finished with a fictitious incident in connection with Keripi (Griffith), a trader of the locality. My collection of songs is in the hands of Mr. Ray, together with a vocabulary of words and sentences in two or three dialects of New Georgia, chiefly compiled by my colleague, Lieutenant Weigall.

## New Georgian War Dance.

(Surgeon V. G. THORPE.)



Another form of the same.





### A favourite song.



Ke-li ma-i Ko-lo-mo-ru-na Kawo Konji Ke-li ma-i



## Jew's Harp Song.



#### Archæology.

As usual in Oceania, any relics of a previous race are either extinct, or almost impossible to discover. There are, so far as I know, no monolithic or other monuments. The stone implements have all been sold to traders, or other ignorant people, or else thrown away as useless by the natives themselves, so I regret being unable to show a single specimen, and do not even know whether the stone axe-heads, said to have been used originally, were imported from other islands or of home manufacture, or even whether of greenstone, or clam shell.

# War and Weapons.

War in New Georgia is pretty well confined to head-hunting expeditions in canoes, undertaken with the sole object of acquiring skulls, and always takes the form of a surprise; the dense bush and want of knowledge of tracks precludes fighting on land to any large extent. The western natives, those of Rubiana and of Rendova Island, are the most warlike and ruthless, and, between them, have completely wiped out the inhabitants of the large adjacent islands of Wana wana, Kiso,

Tetipari, and, with the exception of a small and wretched remnant, those of Kulambangara also. They fell upon the once populous island of Márovo within quite recent years (since 1885, I believe), and reduced the number of inhabitants from about five hundred to considerably less than one hundred. There is a high steep hill at one end of Márovo, and the Rubiana boys, who seemed to have sustained a repulse during part of the engagement, retreated up the slope, and entrenched themselves near the top with stone walls (of which I have seen the remains), leaving access to the summit possible at one small gap only, easily defended by a few men, until they felt themselves sufficiently able to continue the assault.

The eastern natives (now a very small remnant) in their turn have, as their head-hunting field, the large mountainous district known as Vángunu, the natives of which are more savage and uncivilised than their neighbours, and are, on account of these attacks, obliged to live back in the heart of the

ancient crater of their land.

When Commander Davis, in H.M.S. "Royalist," burnt and sacked Rubiana in 1891, the beach was absolutely littered with skulls, the stored and cherished of years; and ever since that date Ingova, the king, has striven to replenish the stock. During the latter end of our first season in New Georgia, accordingly, he went away with all his war canoes on a headhunting expedition to Ysabel Island-New Georgia being comparatively "played out"-to a village called Bombatana, part of the journey being out of sight of land. He took twenty tómako (war canoes) containing about five hundred men, and two good-sized English built boats, containing between three hundred and four hundred rifles, and nine thousand rounds of ammunition. He always leads from the centre, his war canoes flanking out in two wings on either side, and the English built boats close behind him. He intended to attack by strategy, drawing the enemy out of their houses by sending on a racing canoe as a bait to lure them afloat; then falling on such of them as ventured out, in his big boats, at the same time landing a large party at a little distance down the coast to attack the village from the landward side. He returned from this expedition on the day of our departure for Sydney, and we heard he had been quite successful, and taken many heads. Mr. Kelly is my informant for the above details.

On the return of the victors, I was also informed, the heads were all decorated, and placed in a prominent position round the leading canoe; and to the sound of conch-shell brayings, the boats proceeded up the lagoon, the rowers indulging in "fancy"

paddling, as they passed the various villages.

I can give, I regret to say, no information at present as to the reasons that cause the desire for skulls, the obtaining of which appears to be almost the only purpose of these expeditions. I am informed that slaves are kept chiefly for their heads, which are demanded whenever any occasion necessitates them, such as the death of the owner; and are then taken suddenly and unexpectedly; the victim being first killed by a tomahawk from an ambush. He has no previous warning; so it is, so far, merciful.

Such as still remain of weapons in New Georgia exhibit a very great want of skill in workmanship, in comparison with those of adjacent islands, such as Bougainville or Ysabel. The spears are of light make, and are either altogether of wood, ornamented with yellow "whippings" of some rattan-like material, and red calico, or, more usually, tipped with the serrated sting of the tape, or sting ray. Bows and arrows were in use, but I have never been able to procure a genuine fighting one, or arrows either.

The only arrows I saw had entirely undecorated, sharpened hard wood points, in a bamboo grass shaft, and were notched, though unfeathered. I am not at all sure that they were

intended for fighting.

They appear to have had no clubs, and the only weapon now to be seen in canoes, when going even for short distances, is a tomahawk, consisting of a trade axe head on a longish handle, sometimes ornamented with a sort of button at the end, but as often without. Occasionally these tomahawk handles are



MAN POISING SPEAR.

very well carved with figures of crocodile, shark, totoishu, and so on, inlaid with mother-of-pearl and highly coloured. Shields (described under "Basketwork") are made in one or two villages, and are a valuable possession. These are made not only of basketwork, but also of wood ornamented with black, white, and red patterns; perhaps these are only for sale to white people, or for dancing purposes. They are used more to parry a blow with than as a steady protection to the whole body, of which indeed they only actually cover a small portion.

## Fishing.

The natives are very skilful at fishing; which is generally done with rod, line, and hook, though nets for turtle and larger kinds of fishes, with bows, arrows, and spears, are also employed. The hooks are of many sizes, and are mostly made of a piece of mother-of-pearl shell cut to resemble a small fish, to the base of which is attached a strong sharp hook of turtle shell, curving slightly inward, but unbarbed. A couple of tags of coloured beads are also generally added, and no bait is used. smaller fish and fry are taken with a tiny, exquisitely shaped hook of turtle shell, or mother-of-pearl, on an almost invisible line, made from some flax-like plant. The fisherman wades into the sandy shallows, rod in one hand, basket in the other, and in a very short time makes a large catch. Whether the fish are only "jigged," or whether, attracted by the resemblance of the hook to a little worm, they are properly hooked, I cannot say; but when fishing in the middle of a large shoal of small fry, the action of hooking and dropping a fish into the basket becomes so swift and regular as to appear almost mechanical.

Kura.—There is a fine large fish called makasi—excellent eating—which is caught on moonlight nights at the entrances to the lagoon between the barrier islands in the deep water. These are caught either off the canoes by rod and line, or oftener, with kura, from frameworks built out to overhang the blue water outside the steep wall of the reef. The kura is a conical basket about 2 feet deep made of some sort of rattan, netted with a 4-inch mesh, which has a rounded volcanic stone secured at the bottom—the apex of the cone—to act as a sinker. "A running line," also of rattan, passes through the upper row of netting. It is baited with cray-fish or other sort of fish, and a piece of fishing line being made fast to the end of the "running line," it is thrown over. I believe it does not actually lie on the bottom, but the weight of the sinker when the kura is in the water, is not sufficient to tauten the running line. upper end of the line may be held in the hand, but it is usually lightly made fast to a small supple twig cut in the bush, the end of which is stuck in a cranny in the reef, so that it stands up like a fishing rod, with the line on the end of it. When a fish takes the bait, the twig bends violently, and the fisherman, watching for this signal, immediately seizes the line, gives a good sharp tug, hauls up rapidly, and if he is at all skilful, a makasi will be found caught behind the gills by the "running line," with its

head fast in the bottom of the kura, close by the bait.

The natives are very keen-eyed at discovering a shoal of fish, and now that dynamite is available, are both daring and successful in using this dangerous explosive for catching them wholesale; however, it is not uncommon to meet men minus an arm, or with other injuries, from the too incautious use of bunabuna, as they term it. As the fish usually sink when dynamited, the diving powers of the natives come then into useful prominence.

### Agriculture.

Taro is the principal crop raised; the soil in many places being highly favourable to its growth. Patches are cleared in the bush by axe and fire, and after a very short period of use, (one or two crops) are allowed to lie fallow; when, in a remarkably brief time, they become more densely bushed than the surrounding untouched forest, and are thus easily recognised when passing through it. The plants are neatly placed in drill lines, and the small pits, necessary for the good growth of taro, are dug round each plant when it has got to a certain size. have seen patches of as much as two and three acres thus under There are no native implements except a pointed Yams are scarcely grown, as they do badly, and are very small when produced; but the sweet potato, "Cape Marsh potato" — a most excellent vegetable (something resembling the appearance of the sweet potato when growing, but far better eating), papaw, banana, plantain, sugarcane, and piper betel are all in cultivation, the root crops yielding, as a rule, two harvests in the year.

There is no necessity for irrigation, as it rains on the average upon every other day; and there is no regular harvest time, the produce being collected by men or women as required. I have not heard of any religious ceremony in connection with agriculture, nor any legends concerning its introduction, though

they may exist.

### Slavery.

Slavery certainly exists, but it is in so mild a form that it is scarcely possible to detect master from man. I have never been able to elicit any facts concerning its introduction, propagation, or limits, or even if (in so many words) it existed at all.

Wherever in these notes I have mentioned slaves, in connection with fighting, taking heads, and so on, it has all been indirect information.

#### Burials.

At a man's death, the body is buried in a sitting attitude in the ground, the head being left exposed, surrounded with four pieces of wood placed like a collar, for five days (I was told by one man), or until the ants have removed the flesh. The head is then taken, scrubbed clean with sand and salt water, and bleached in the sun until it is white.

A man from another district (Ngarási) told me that, when dead, a man was painted with the usual white limed lines across the brows, and along the jaw bones—called mbúsapúnderi—and his hair whitened. After a feast, and a cry over him, he was put in the ground; not sitting, but lying on the back, knees bent, arms bent at elbows, with hands hanging over the chest. When the skull is cleaned, it is placed on the top of a stout post, on a sort of perch, and covered up with thatching. Two small triangular holes are then cut in this thatch, opposite the eye-sockets of the enclosed skull, and near by it are placed pipes, tobacco, rings, and food. At the conclusion of a hundred days the skull is finally removed, and stored with those of the former chiefs, or household lords, either all together in a little special ark, called a *leba*, or in separate house-shaped boxes, like diminutive dog-kennels; or sometimes in square recesses cut in an adjacent rock. For the rest, when the flesh is completely gone off the bones, they are gathered together, cleaned, and buried either in the ground, or sometimes in a cairn of stones, like an altar, about which various old "properties" are disposed. Káravo, the King of Ngarási, departed from the usual burial custom by laying his brother out, unburied, on a rocky islet of the sea coast, until the flesh should have gone from the bones. A sort of framework of wood surrounded the body.

During the hundred days all the property of the dead man is sacred; his coconuts, his canoe, his house—no one may touch them any more than if he were alive—and his dog, if he had one, is allowed to go and starve in the bush; no one will care for it.

At one place I saw the skull, instead of being placed in a box, was put in the head of a large more than life-sized figure of a man carved in wood—intended to represent the deceased—and similar statues of his wife and child stood alongside of it.

Islands off the coast are almost invariably chosen as places of sepulture. A grave, on one island where I was camped for some time, consisted of a square heap of stones, about 3 feet

high, containing the bones of the deceased; a small, very neatly built house, or hutch, containing his head (a ring hung outside the door); and a little circular garden surrounded with stones, in which grew a young draccena plant, and one or two crotons. All three were placed, closely adjacent, on a specially levelled plot, built up with stones, and having a slight embankment wall on one side.

I believe it is customary to kill a slave or slaves on the death of a master, and in fact they are kept principally for this reason. The death is not cruel, as the tomahawk falls on them unawares, but unfortunately I can give no details of this custom.

### Astronomy.

There are names for the sun, moon, and stars generally. I collected from one man the particular names for Orion, the Centaurs, Venus, the Pleiades, and one or two others, but am unable to give them, having unfortunately mislaid the paper on which I wrote them. Daylight is divided by the height of the sun; the length of day varies but little throughout the year, at a position so near the equator, and the almost invariable twelve hours of daylight are divided into seven parts, regulated by the position of the sun. Time, however, is reckoned not by days, There are special names also for the various but by nights. phases of the moon. They do not seem to calculate long periods of time at all-one full moon to another is as far as they usually go; and crops come so often and irregularly, that it is impossible to reckon by that standard. Temperature varies so little that a division of time by it has not occurred to them; and hurricanes never reach their islands to mark a period for them either.

These are names for the following winds:—North (Tolaoru), North-East (Hecha), East (Ngálisu), North-West (Tiva Línggutu), West (Mohu); all Southerly winds are called Tua Vela, and the night wind (Kolomuru). Of these Hecha (the North-East wind)=blind; Ngalisu (East)=knife; Tiva Línggutu (North-West)=name of the district whence it blows; Tiva, signifying a mast, or anything upright; Mohu (West)=Wet; Kolomuru perhaps means "ocean seeking"; but of Tolaoru, and Tuavela I can give no etymology.

### Property.

Property seems to be well recognised: every one of the myriad islets of the great eastern lagoon has its understood owner, no matter if coconuts be growing there or not. Groves of coconut trees are well protected by *hopes*, as before described, as are also tare patches. Hunting rights over opessums on a

man's property are also protected by hopes. Property descends from father to son, and if there be more than one, it is divided (equally) between them. If there be no son, the daughter succeeds; and if no child at all, a nephew (I presume either a brother's or sister's child) inherits.

If there be no near relative, it is arranged by the village to whom the property is to belong. A wife may succeed to her late husband's property—I presume if there are no children.

#### Trade.

The New Georgian natives are keen and close bargainers, and are fully the equal of the white man in cheating at trade. Among themselves, no doubt, there are exact standards of value, one village producing taro, while another makes shields, and so interchange is effected. Shell rings (hôkata) are a great medium of exchange; and, in dealing with white folk, whales' teeth, shell rings, and tobacco, may be taken to approximate pounds, shillings, and pence; the current value for these in our money is roughly: one whale's tooth = £1, one hôkata = about 1s. 3d., a stick of tobacco =  $\frac{1}{4}d$ .

Coconuts and copra are the articles in biggest sale to the white traders: "ten on a string" is the rule—that is ten interiors of coconuts—and two strings are usually tied together. The value varies very much, from one to three sticks of tobacco per string. Pearl shell and turtle shell are also articles of trade.

The desire for whales' teeth (called in the native tongue kalo) is one of their most remarkable distinguishing points, as they do not wear them as ornaments. However originated, a good whale's tooth is now worth a very large amount of copra, and may be seen with other cherished possessions on a man's grave. The goodness of a tooth is calculated as much by weight as by outward length. Many teeth are pointed, and hollow from the root (like the "kick" of a bottle) for some distance up. These are the least valuable; and an unfiled tooth also is much preferred to one that has been polished, and made to look smooth and white.

They seem to make no use of their wealth however; the mere fact of possession is sufficient, and *kalo*, shell rings, calico, clothes—any article of European clothing is a great prize—are simply stored up, and scarcely worn or used at all. Neither is the desire for wealth very strong, certainly not strong enough to overcome laziness, except in rare instances.

Division of Labour.—All classes, both men and women, labour, if the very slight tending of gardens necessary to grow food can be called labour. In the eastern part, the treatment VOL. XXVI.

of women is notably good. I have but rarely seen them at work. Everybody is a fisherman, and a maker of copra. Such a trade as canoe maker seems more distinct, and is generally combined with that of wood carver; but I fancy that all have some idea of the art.

Credit.—I am not aware whether the natives give and take credit among themselves; but they often, and, I believe, usually, take it from, and give it to white traders. I am told that they

are as loath to pay their obligations as any white man.

Measures and Weights.—There seems to be no idea of sale by weight, the eye gauges the value of, for instance, a lot of taro; and measure, such as of calico, is by the fathom or ngawa—the human span of arms—perhaps this has been introduced by traders. Greater lengths, such as of a house, is by paces, each man being his own standard, by stretching out as far as he can.

#### Marital Relations.

I never witnessed any marriage ceremonies, but probably they exist in some form. Bera, the eastern chief, told me that if a man wishes to marry any girl, he goes to the father's hut with a basket of food, as a present, to open proceedings. If this first talk seems favourable, he brings, when no one is looking, several large, roughly made, shell bracelets, quite useless for wear, and leaves them on the ground at the door of the hut. He then goes away. Next day he comes again and if his rings are still lying there he is rejected, but if taken inside he is accepted. The marriage then takes place, but Bera said there is no feast or ceremony. The rings thus obtained are broken at their owner's death into two pieces, and placed on his grave.

Another account, probably better, as it was delivered to me in the native dialect, during our second year, is as follows:-If a man wishes to marry a chief's daughter, he must bring thirty or forty articles, of which kalo (whales' teeth) and lave (shields) must form some part; but if he is after an ordinary girl, ten articles are sufficient. These he lays at the door of her father's house. He then sits down opposite them, with the girl's father and mother on the other side, and, the girl being sent away, "talk" (i.e., haggling) begins. If the would-be husband is accepted, the present is taken and the girl handed She cries (probably perfunctorily), but is chaffed by her father and mother until she agrees to be consoled. The fathers and mothers of the happy pair both make feasts, and everybody in their respective villages eat. If a man and a girl fall in love with one another, and the man is poor, and cannot afford to pay, they go away and hide together in the bush, until the parents cease to be offended, when they return to society, a

married couple. (Note.—There must be some restriction—if only that of shame—upon this, for under such circumstances no one would go to the expense of making presents when he could be married for nothing.)

If a man marries a girl who has had an "illegitimate" child,

he accepts and adopts the boy as his own.

A widow may marry again if she wish, but not if the mother of her former husband is alive.

A widower may marry again, also, provided that his late wife's mother is not alive.

Child-birth.—When a woman is to be confined, she goes away into the bush with some other (and older) woman, and presumably, a few men, who build two houses, one for her, and one for the old woman. After the birth, the mother remains twenty-five days in the bush, and then returns to the village, to her own house, a feast being held to celebrate the occasion. The child is given its name by both father and mother, and retains the same one throughout life. It is usually that of some fish, bird, or natural object, but never the same as that of the father.

After the return of the mother with the twenty-five days infant, she sleeps with the child, in a separate bed from her husband, until the baby's teeth have come, or until it is beginning to talk, when cohabitation again begins. The child is suckled until it is able to walk about easily, it is then tried with a piece of fish (malokai? name doubtful), and if it can eat and digest it, suckling is stopped, but if not, it is continued until the fish can be eaten.

There is no feast or celebration at the entrance to puberty of

either a boy or a girl.

The wife apparently enters into the family of her husband on marriage, for the children belong to the father's tribe. Polygamy is permitted, but I never saw a man with more than two wives, and by far the most usual was one wife only. All the unmarried girls being available, when desired, both for married or single men, concubinage does not exist. I understand that the wives live together under one roof, but if one is preferred before the other I cannot say. I deduce that divorce cannot exist, since a wife is promptly tomahawked if she misbehave herself; the husband may do as he please, and it has not yet occurred to them that cruelty should be legal cause of separation.

#### Games—Amusements.

The only game I witnessed was called Warahinduhi, and is played as follows, by either boys or men, but usually by lads of seventeen or eighteen.

2 E 2

Two players seat themselves on the ground, about six paces apart, placing in front of them, in line towards the opponent, two cylindrical tin trade matchboxes, about one foot

apart.

There is a very common and beautiful sea-coast tree that, after producing deliciously scented white blossoms, bears a spherical nut about an inch in diameter. Each player provides himself with a number of these, and the scorers sitting by use others to score with.

The players bowl these nuts alternately at their opponents' match-boxes in order to upset them; the scoring only takes place after the return ball from the opposite side, and is as

follows :-

(1.)

A bowls to B, and upsets the front box:
B bowls back and hits neither of A's.

A scores 1.

(2.)

A bowls to B, and upsets the hinder box:
B bowls back and hits neither of A's.

A scores 2.

(3.)

A bowls to B, and upsets both boxes:
B bowls back and upsets neither of A's.

A scores 5.

(4.)

A bowls to B, and upsets the front box:
B bowls back and upsets A's hinder box.

B scores 1.

(5.)

A bowls to B, and upsets the hinder box:
B bowls back and upsets A's front box.

A scores 1.

(6.)

A bowls to B, and upsets both boxes:
B bowls back and upsets A's front box.
B bowls back and upsets A's hinder box.

A scores 4.

A scores 3.

If, in any case, B bowls back to A, and upsets the same box or boxes that A did, there is no score.

The game is sixteen points, and the winner of a game remains playing, one of the other boys taking the loser's place, until he himself is defeated. With some players a hit only of

the matchbox counts as an "upset"; but usually, the box must

be properly bowled over.

Toys of pieces of coconut fronds are made for children. Three of these are a "whirligig," a "whistler," and a "frigate-bird," of which specimens have been sent to the Museum. The first is a little windmill which revolves when presented to the wind; the second an arrangement of coconut leaf which, when violently swung round in the air, gives a sound like a large locust humming; while the third is a rough representation of a bird balanced on the tip of a stick—as one balances forks on the edge of a tumbler—and gives the appearance of a mbélema (frigate-bird) sailing overhead.

I understand that canoe races take place, but I never saw

one: racing canoes are specially built.

#### Dances.

We witnessed two dances, which were specially performed for us on board the "Penguin." One, of which I have given the words which accompanied it under the heading of "Music," was performed armed with shield and spear, the other with tomahawks. It gives but little idea of a war dance, either in tune or measure. About ten men formed in single file, a pace or so apart, holding spear over shoulder, shield in position and the whole body in a crouching attitude. As they sang the words of the song, they advanced with stealthy step, turning together the face and body alternately, and rhythmically, first to the right, then to the left, in time to the words of the song; thus the verse began with all turned to the right:—

"Peka, peka—turo" (all turn to left) (back to right) "peka, peka—turo" (left again).

When it came to the second line, some of them sang notes in harmony with the air, and the verse was sung over and over, as the company slowly moved past, until all had

gone by

The other dance, with tomahawks, was more curious. A single line was formed as before, but the weapon, instead of being poised for a blow, was held sloped to the ground with the head downward; the acorn, usually carved at the butt end of the tomahawk, held at the lips; and at each slow forward step, all the men together made the sound "ff—ff" with the lips, blowing air out, strongly, as loud as they could, and so slowly passed by.

There is a third, a more active dance, with spear and shield only, in which the performer hops from foot to foot with body

crouched behind the shield; if without spear, the first finger of the right hand is placed on top of the shield, just where the eyes are glancing over. However I never saw more than one man doing it, so can give no details.

### Communication.

The roads are simply a network of paths running through the dense bush, for the most part engineered on the well known method of following the crests of the ridges. I had no good opportunity of testing the power of making a track through the bush; but my impression is, that although extremely good at picking up and following a track they have already been by, they are not much better than anybody else in a new country.

Streams are bridged by a fallen tree where necessary, and

wading impracticable.

### Contact with White Races.

The only white people with whom the New Georgians have as yet come into contact are traders, and men-of-war's men. Considering all things, they have kept themselves "right end up" fairly well, and no sign of the decrease of the race from either of these causes is visible. At the same time, in the eastern parts, the number of the population has gone down with great rapidity: an old trader of twenty years' experience told me that in his recollection the numbers had terribly decreased. This to a large extent is probably due to head-hunting, which has, as already described, almost annihilated some villages, and driven the wretched remnant back into the bush; thus giving the appearance of an absolute depopulation, the usual white man seeing no more of the country than is visible from the sea. No doubt head-hunting has always been their custom; but it is probable that the advent of rifles, and especially of iron tomahawks, during the last forty or fifty years, has largely increased its fatal effects; so that where one man's head was taken in old times, three or more are taken nowadays.

Another factor has been the bombardings by men-of-war, which though they have not perhaps very materially decreased the actual numbers, yet, similarly to head-hunting, by driving the natives back into the hills, have given the appearance of depopulation along the coast. These bombardments, however, through being somewhat indiscriminate, have created a terror that will, when the islands come to be settled, be hard to eradi-

cate.

On the whole, then, accepting the evidence of the oldestablished trader before mentioned (Mr. Wickham), the race has most certainly diminished rapidly during the last ten or twenty years, the chief cause being head-hunting. Of the results of going to labour in Queensland, I am not prepared to speak, but I fancy that recruiting in New Georgia has never been very largely prosecuted; certainly no "labour ship" came

near this group during our stay.

It is logical to suppose that unless some sort of government be started which will prevent head-hunting, especially now that we have proclaimed a protectorate over half the Solomon group, the races inhabiting New Georgia will gradually be exterminated. Except from a scientific point of view, I think one might be almost reconciled to this dispensation. The natives have their good points, certainly, but their bad are so much more conspicuous that the elimination of the race would be no great loss to the world. Worst of all their bad points almost, is their incredible and incurable laziness—the heritage of all Pacific races—the result, no doubt, of the extreme fertility of a land which causes them no occasion to work in order to live.

If cultivated by a more industrious and energetic people, these islands are sufficiently fertile to produce satisfactory crops of tea and rice besides, many other valuable articles of trade, such as coffee, timber, pearls, turtle-shell, and so on. No one knows what mineral wealth there may be. The sea teems with fish. There are no wild beasts, and the snakes,

which are not numerous, are said to be all harmless.

A step in the direction of civilisation has lately been taken by the appointment, by the Fiji Government, of Mr. C. M. Woodford as a "Resident" with head-quarters (I believe) in the beautiful island of Guadalcanar; and a second has been made by the Melanesian Mission, which in 1895, having already performed civilising wonders in the adjacent island of Florida, sent a first detachment, under Dr. Welchman, to New Georgia. The white traders have, naturally enough, poured into the native ear, ever since they first established themselves in the group, stories—need one say hideously false—concerning the missionaries and their doings, calculated to inspire the utmost terror and repugnance, and designedly sufficient to prevent the natives from allowing, for one instant, the establishment among them of a worse set of foreigners than even the traders themselves; a set, moreover, who did not even bring with them the redeeming blessings of firearms and gin. Accordingly, on the arrival of the "Southern Cross" all the eastern natives promptly decamped into the bush, and not one single boy did the mission collect for their college in Florida.

As I had supplied the Bishop of Melanesia with a full account of the eastern district, its chief men, and my colleague's

# 412 B. T. Somerville.—Ethnographical Notes in New Georgia.

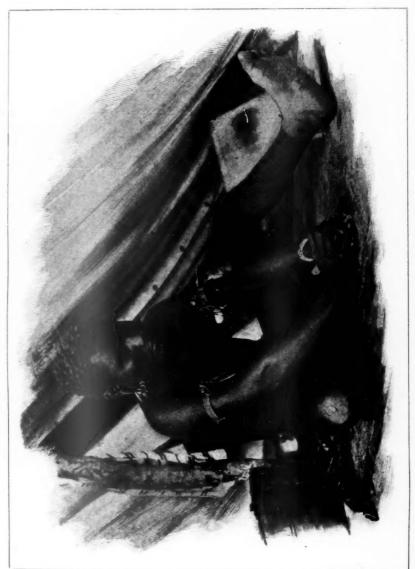
(Lieut. Weigall) dictionary of the language as far as we knew it; and as, while we were living in their midst, we had industriously attempted to combat the stories concerning the missionaries the natives had already received, this must be considered a most disheartening failure.

I hear a second attempt is to be made this year (1896), and I hope it will be more successful.

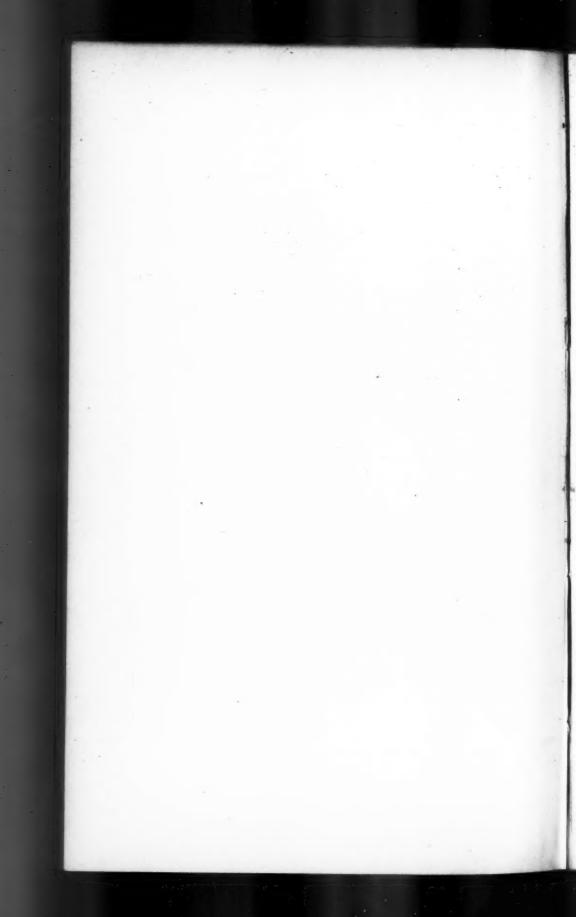


PREPARED HEAD. RUBIANA, NEW GEORGIA.

Journal of the Anthropological Institute, Vol. XXVI, Plate XXXV.



"KUMITI" MAKING FIRE. (See page 376,)





"PLAYING THE Mike Ivivu." (See page 396.)





TWO NATIVES OF NEW GEORGIA.



#### ANNUAL GENERAL MEETING.

JANUARY 26TH, 1897.

E. W. BRABROOK, Esq., F.S.A., President, in the Chair.

The Minutes of the last Meeting were read and signed.

The CHAIRMAN declared the ballot open, and appointed Dr. Leitner, and Mr. R. B. Holt, Scrutineers.

The Treasurer, Mr. A. L. Lewis, read the following Report:-

#### TREASURER'S REPORT FOR 1896.

The income of the Institute for the year 1896 was £530 7s. 9d., being £16 5s. 1d. more than the income for 1895. The sale of publications was increased by £20 9s. 1d., while the subscriptions were reduced by £4 4s., but this reduction is accounted for by the fact that only one life composition was received in 1896 as against two in 1895.

The expenditure for the year 1896 was £515 10s. 5d., as against £511 15s. 3d., properly chargeable in 1895. The difference is small and the items composing it need no explanation. The most satisfactory point to be noted is that our income has exceeded our expenditure by £14 17s. 4d. in consequence of the increased sale of our publications.

The liabilities at the end of 1896 (other than our moral liability to life members) were :—

					£	8.	d.	
Rent for one	quarter				33	15	0	
Journal, one					50	0	0	
"Anthropolog	ical No	tes and	Queries	3 "	36	5	4	
Sundries, say			• •		14	19	8	
	Total				£135	0	0	

The assets at the same date were £600 Metropolitan Consolidated Stock (worth about £720), cash in hand and at the Bankers £167 15s. 11d., some unpaid subscriptions, and the library, furniture, and stock of publications.

A. L. LEWIS,

Treasurer.

# ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

# Receipts and Payments for the Year 1896.

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Examined and found correct,

(Signed) ROBT. B. HOLT, Auditors.

January 23rd, 1897.

The Secretary, Mr. O. M. Dalton, read the following Report:—

REPORT OF THE COUNCIL OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND FOR THE YEAR 1896.

The Council has to report that during the past year ten Ordinary Meetings and one special meeting have been held, in addition to the Annual Meeting.

In the course of the year the following numbers of the *Journal* have been issued: Nos. 94, 95, 96, and 97, containing 440 pages of letterpress, and illustrated by 23 plates and several woodcuts.

The Library is in full working order, many valuable additions having been made in the course of the year. The Catalogue has been kept up to date.

A scheme for classifying negatives and photographs in the possession of the Institute, and for the establishment of a loan collection of Anthropological lantern slides for the use of Fellows was under the consideration of the Library Committee at the close of the year.

The retirement of Mr. Doubleday has deprived the Council of the services of a most efficient Assistant Secretary. Mr. J. A. Webster has been appointed in his place. Nineteen new Fellows have been elected during the year, viz., three honorary and sixteen ordinary Fellows; fifteen have retired or died. The number of Corresponding Fellows was twenty-six.

In the following table the present state of the Institute, with respect to the number of its members, is compared with its condition at the corresponding period of last year:—

	Honorary.	Corresponding.	Compounders.	Ordinary.	Total.
January 1st, 1896	44	25	86	202	357
Since elected	3	1	1	16	
Deceased or re- tired		••	3	12	••
January 1st, 1897	47	26	84	206	362

The following are the names of the Fellows whose deaths have been reported during the year:—

Mr. Horatio Hale, Honorary Member.

Mr. William Lockhart, Corresponding Member; and,

Mr. J. G. Philpot.	Dr. John Nottingham.
Mr. J. Walker.	Dr. Wilberforce Smith.
Capt. J. Keene.	Dr. Robert Brown.
Sir J. Prestwich.	Mr. A. Pulford.
Dr. J. L. H. Langdon-Down.	Miss E. E. Smith.

The Reports were adopted on the motion of the President. seconded by Dr. GARSON.

#### ANNIVERSARY ADDRESS.

By E. W. Brabrook, President.

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# 1. Retrospect of Sixty Years.

I HAVE observed, in the Presidential addresses delivered before some other scientific societies, that the keynote has been given by the circumstance that Her Majesty is now in the sixtieth year of her reign:—a reign longer, and also happier, more glorious, and more fruitful than any previous reign in English The Fellows of the Anthropological Institute will in history. no way be behind any of Her Majesty's loyal subjects in congratulating her upon this event, and in heartily wishing that it may still be granted to her in health and wealth long to live, and that the remaining years of her reign may be even happier than the past, and still more fruitful in all that tends to the glory and welfare of the country, in which the progress of scientific research and discovery are to no slight degree involved. The addresses to the other societies to which I have referred have in general dwelt upon the advances which have been made in the branch of science with which each

society was concerned during the sixty years in question. If I were to follow the example I should have to go back to the very beginning of anthropology, for as a science it did not exist when Her Majesty ascended the throne.

If anybody had consulted the "Encyclopædia Britannica" in the year 1837, he would have found Anthropology defined as "a discourse upon human nature; among divines, that manner of expression by which the inspired writers attribute human parts and passions to God." Had he referred to Johnson's Dictionary, he would have obtained the definition that Anthropology is the "doctrine of anatomy; the doctrine of the form and structure of the body of man." Linnæus, Buffon, and others had rightly treated man as a part of zoology. Blumenbach and a Dr. John Hunter had both in the year 1775 delivered discourses on the natural varieties of man: but both these treatises, remarkable as they were, remained in the form of Latin Doctorate theses. Prichard's great work on the physical history of man first appeared in 1813. were the materials the student had for research in anthropology in the year 1837.

The Ethnological Society of London was not founded until 1843; ethnology was not adopted by the British Association until 1846, when an ethnological subsection of Section D was presided over by Prichard, with Richard King as Secretary. The Anthropological Society of London was not founded until 1863; and Anthropology was not adopted by the British Association until 1866, when for that year only an anthropological department of Section D was presided over by Alfred R. Wallace, with W. Turner and E. B. Tylor as Secretaries. In 1869 and 1870, Departments of Ethnology were presided over by E. B. Tylor and J. Evans; in 1871 to 1883 a Department of Anthropology was attached to the Section of Biology; in 1884 Anthropology became Section H, and has since then been not the least attractive, successful, and useful of the sections into which the field of science is mapped out by the British Association. This position it seems likely to hold.

# 2. Present Position of Anthropology.

Our backward glance over the sixty years of Her Majesty's reign, therefore, covers the whole history of Anthropology as a science; and we have but to compare the treatise on Anthropology, which was contributed by Professor Tylor to the 9th Edition of the "Encyclopædia Britannica," with the brief definition of the subject and of its theological namesake, which appeared in the 5th Edition of that work, to see what an absolute creation the modern science of Anthropology is. The author of that masterly treatise shows not merely how comprehensive and far-reaching are the claims and the province of Anthropology, but also how much has been done since the days of Blumenbach to establish it upon a sound basis.

If there be any among us who think that the status of Anthropology as one of the exact sciences is not what it should be, they should bear in mind that as yet it is the youngest of the sciences. The other sciences that have made enormous progress during the period of sixty years entered upon that period with an assured position and a ready-made grammar. These the anthropologist has had to build up for himself. This being considered, the progress of anthropology will bear comparison with that of any other science.

With this preface I may now proceed to point out to what extent the labours of this Institute have contributed to that progress during the past year. I shall briefly call your attention to the papers which have been read, arranging them in the order which I adopted in my last address. We have had no sensational discovery brought before us, to rival the exhibition of *Pithecanthropus* last year, but we have had many interesting and valuable communications.

# 3. Papers on Physical Anthropology.

In the Department of Physical Anthropology, we owe to the influence of my predecessor, Professor Macalister, two excellent papers. In one, Mr. R. J. Horton-Smith, of St. John's, compared

the cranial characteristics of the South Saxons with those of some of the other races of South Britain, and arrived at the following results:-first, that in the round barrows are to be found two types of skulls, one like the long barrow skull, while the other type is more British, leading to the inference that the broad-headed immigrants of the Bronze age conquered the Neolithic race, and then fused with them; second. that the South Saxons are not an absolutely pure race, having a small amount of British blood in them; and the Wessex Saxons are less pure, having more frequently intermarried with the British population. In the other Mr. Myers, of Caius, gave an account of 63 skulls from a field in the neighbourhood of Brandon, Suffolk, recently secured for the Cambridge University Anatomical Museum, and arrived at the following equally valuable results; that while there are skulls of three or four distinct types, brachycephalic, dolichocephalic, and subdolichocephalic, the larger number of skulls exhibit characters intermediate between those various types; and that the burial ground belonged, therefore, to a people which had for some time been living in a state of friendship and intermarriage, although composed of ethnically diverse races. These papers afford welcome confirmation of the doctrine of continuity, laid down by Prof. McKenny Hughes in the admirable address which he delivered to the Antiquarian Section of the Royal Archæological Institute at its Canterbury meeting last July. I make this observation with the more pleasure that it fell to my lot, two days later, not having heard Professor Hughes's address, to offer arguments in the same direction to the same audience, based on the History of Kent, though I fear Professor Hughes would decline to accompany me on the path by which I arrived at a conclusion common to both.

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# 4. Papers on Prehistoric Archæology.

In the Department of Prehistoric Archæology, we were favoured by Mr. Seton-Karr with an exhibition of the remarkable collection of stone implements discovered by him

in Somaliland. These again are most important documents for the consideration of the questions whether and where the connecting link exists between the paleolithic and the neolithic periods of time. That the progress of humanity must have been continuous from the earliest ages to the present is a theory which has its attractions for all of us. and we cannot fail to keep our eyes open for indications of that continuity and traces of the steps in the one rude art of the period which mark its successive stages. experienced and cautious mind of Sir John Evans was impressed with the conviction that in Mr. Seton-Karr's discoveries one of these steps is perceivable. Coming to a later stage, we have to thank Dr. Gladstone for his paper on the transition from the Copper to the Bronze age; and Mr. Myres, for the paper in which he traced copper from its home in Cyprus to Hissarlik and Egypt. Indeed, I cannot but think that continuity is in the air, for it was most ably asserted from another point of view in our colleague Mr. Arthur Evans's presidential address to the Anthropological Section of the British Association in September.

# 5. Sociology: Mr. Herbert Spencer.

I do not recollect any communications belonging specially to the domain of general sociology; but I take the opportunity of mentioning that branch of our studies in order to offer my respectful congratulations to Mr. Herbert Spencer on the completion of his great text book on that subject. I have had the gratification of joining in a request to him, with which we are all glad that he will comply, to permit some enduring memorial of that occasion to be made. Mr. Herbert Spencer prefers, I believe, the atmosphere of his own study to that of a meeting room; but I do not forget that he, on one occasion, in the year 1875, contributed a paper, and on another, attended a meeting of this Institute, and joined in a discussion. The paper was a very masterly summary of the whole subject of comparative human psychology, intended to be a guide to

the psychological section of the Institute in the work it was then about to undertake.

# 6. Papers on Ethnography of Europe.

In the ethnography of Europe we have had two papers from Dr. Montelius, whom we have just added to our list of Honorary Fellows. He visited England in the autumn, but was not able to stay long enough to read his papers in person. They were laid before you by our Secretary, and excited some discussion. In part they were a response to the invitation of Mr. Arthur Evans, as president of the Anthropological Section at the Liverpool meeting, for papers relating to Eastern Europe and the origin of its peoples. It is always satisfactory when an anthropologist of the eminence of Dr. Montelius is willing to lay before a public audience and submit to discussion views that he has formed; and researches such as his must be instructive even to those who do not accept his conclusions. In the present instance, there is no doubt much to be said on both sides of the questions he raised, and his papers, when they appear in our Journal, will afford the foundation for their Besides Dr. Montelius, we have added to our list of Honorary Fellows, Mr. Holmes of the United States of America, and Dr. Rudolf Martin, of Zurich.

# 7. Papers on Ethnography of Asia.

With regard to Asia, Col. Woodthorpe, to whom we were indebted in 1881 for a valuable paper on the wild tribes of the Naga hills on what was then our North East frontier of India, has given us a very effective and picturesque demonstration of the costumes and other peculiarities of the Shans and the variety of hill tribes inhabiting the States on the Mekong, in Indo-China, now the eastern limit of our Burmese territories.

Miss Gertrude M. Godden has contributed a monograph upon the Nágá and other frontier tribes of North-East India, in which the knowledge we possess from various sources of those wild hill tribes is ably digested and systematised.

The Rev. Walter Weston favoured us with information as to the customs and superstitions of the people inhabiting the great range of mountains in Central Japan, known as the Shinano-Hida range, gathered by him upon several visits to those highlands made during the six years in which he was British Chaplain at Kobe.

Mr. Creagh described some unusual forms of burial practised by the people of the East coast of Borneo; Mr. Wray, curator of the museum at Perak, furnished some important information on the cave-dwellings of that district, and animadverted on the report of Mr. Everett that they presented no special anthropological interest; and H.H. the Ranee of Sarawak, Lady Brooke, has presented the Institute with a fine collection of typical photographs of natives of the Rajah's territory, taken by herself. Mr. C. M. Pleyte has kindly sent us for publication a hitherto inedited legend of the Creation current in Batak, enriched with learned annotations.

Dr. Garson has favoured us with an account of Mr. M. V. Portman's recent observations on the Andamanese.

Mr. Balfour has exhibited a variety of native Indian preparations of hemp, and related the life history of an Aghori fakir.

# 8. Papers on Ethnography of Africa.

For Africa, we have to thank Mr. Swan for notes on his exploration of the ruined buildings in Mashonaland described as temples, similar to those at Zimbabwe discovered by Mr. Bent, which are of deep interest, as relics of a long departed civilisation and religion. Mr. R. M. Connolly has favoured us with the result of his vigilant observations of the habits of the primitive folk of Fanti-land, on the West coast, in the form of a comprehensive paper on their social life, including a very considerable body of information as to the language. Dr. Sclater kindly exhibited a board on which a game resembling draughts is played in Nyassaland, and Mr. Read contributed some observations on the subject of similar games. Mr.

Balfour exhibited a remarkable bow and arrows found in Egypt, but believed to be of Assyrian origin.

# 9. Papers on Ethnography of America.

For America, we have had a communication from our eminent colleague, Professor D. G. Brinton, which I did not include among the contributions to Prehistoric Archæology, because it gives the weight of his great authority to the statement that in the Eastern United States, a region in which he has visited most of the important stations and seen most of the typical collections, the oldest stone implements present nothing in form or appearance, and have not in the history of their discovery any sure connections, which would convey them in time or in art-development to an earlier people or culture than that of the American Indian, as he was found by the earliest European voyagers. We had also a discussion, initiated by Mr. Osbert Howarth, in which that gentleman's suggestion of a migration of Asiatic culture to Mexico was found not to be supported. Mr. Read exhibited to us a remarkable wooden mask from the North-West coast. Our Hon. Fellow, Mr. Horatio Hale, sent four Huron wampum belts for exhibition, accompanied with a study of the historical and mnemonic uses of those symbols, which was supplemented by Professor Tylor in such a way as to throw a flood of light on this obscure but most interesting subject. The news of the death of Mr. Hale, well described as the Nestor of American ethnology, on December 29th, has been received by all of us with great regret.

# 10. Papers on Ethnography of Australasia.

For Australasia, we have to acknowledge a communication from Mr. Etheridge on Australian shields, more particularly the Drunmung, which has been published with some excellent illustrations; and an exhibition by Major-General Robley of a number of specimens from his unrivalled collection of dried Maori heads, which he has since more fully described in his pleasantly written and well illustrated work on Moko or Maori

tattooing, in which that painful and difficult art is skilfully displayed. Lieut. Somerville's notes on New Georgia were of great interest, and the figures which accompanied them were exceptionally lifelike.

# 11. Papers on Linguistics.

In the Department of Linguistics, besides the contribution of Mr. Connolly on the languages of the Fantis, to which I have already referred, we have to thank our member, Mr. Sidney Ray, for a vocabulary and general notes on the language of Makura, in the Central New Hebrides, compiled from information given by the Rev. Oscar Michelsen, Presbyterian missionary on the island of Tongoa.

# 12. Journal of the Institute.

In addition to these papers which have been read at our meetings, we have to acknowledge valuable critical reviews of new works, contributed by Professor Keane, Miss Buckland, and others, to the "Miscellanea Anthropologica" in our Journal, and also the excellent Bibliography which is prepared each quarter by our indefatigable Secretary. The Institute is deeply indebted to that gentleman for his devotion to its welfare, and for the exertions which have led to so many interesting and successful meetings having been held during the year.

# 13. Losses by Death.

I am glad to find that we have not this year to record any loss by death comparable to that which we sustained by the death of Huxley in 1895. The laws of nature, however, exact from us each year a tribute of worthy members, whose memory we cherish; and there are several of those who have joined the great majority during the past year whose services I must take this opportunity of recording.

Dr. Langdon Down was elected a member in June, 1865; he became a member of Council in December, 1866, and served several years in that capacity. Beyond an obituary notice

of a pupil of his, I do not find that he contributed to our transactions, though he was an eminent alienist and patient investigator.

Dr. Wilberforce Smith was elected a Fellow of the Institute on March 25, 1890, and at the meeting of December 9 in the same year, joined in the discussion of Lady Welby's paper on "An apparent paradox in Mental Evolution." At our meeting on May 8, 1894, he read an excellent paper on "the Teeth of ten Sioux Indians," in which he investigated the curious fact of the superiority of savage races over civilised man in respect of the development and freedom from decay of their teeth. To this he afterwards added a note, in which he suggested that the ancient Romans owed the like superiority over ourselves to their disdain of the knife and fork, and supported his view by quotations from classic writers. He also contributed several papers to the Anthropological Section of the British Association and served for some years on the Anthropometric Laboratory Committee and the Committee on Feeble-minded Children. In him we have to regret the loss of a colleague of high competence, from whom other communications of value might have been expected.

My dear and honoured friend, Mr. William Lockhart, of Blackheath, had been a corresponding member of this Institute from its beginning, having been previously a corresponding member of the Ethnological Society. Nearly forty years ago he contributed a paper to the Transactions of that Society on the "Miautsze," or Aborigines of China, and produced for inspection a series of drawings of those hill-tribes, made by Chinese artists. As far back as the year 1834 he qualified himself as a surgeon, and shortly afterwards became the pioneer medical missionary to China, where he remained for thirty years. He married a sister of Mr. (afterwards Sir Harry) Parkes, and that estimable lady survives him. The very interesting biography of that able diplomatist, lately published, contains much information communicated by Mr. and Mrs. Lockhart as to his early career. For many years

past, Mr. Lockhart had been an active director of the London Missionary Society, and in that capacity took great interest in the Society's Ethnological collections, now in the British Museum. He had large collections of his own, principally relating to China, some of which are now in the Museum of Practical Geology at Jermyn Street, and others at the British Museum, but a considerable number remained in his own possession. Though he had not for a long period attended our meetings, I had frequent opportunities of observing the interest he took in our transactions, and discussing anthropological questions with him. He became a Fellow of the Royal College of Surgeons in 1857.

The Rev. W. Wyatt Gill, LL.D., was another of the many remarkable men who have been selected by the London Missionary Society to minister among uncivilized peoples, and have used the opportunities of investigation thus afforded them for the benefit of anthropological science. He contributed a paper to this Institute on February 8, 1876, "On the Origin of the South Sea Islands, and on some Traditions of the Hervey Islands," and on that occasion he remarked, "I have spent about twenty-two years in the Hervey Group in the South Pacific. Shut out to a great extent from the civilised world, I enjoyed great facilities for studying the natives themselves and their traditions." In 1890 he contributed to our Journal some information as to childbirth customs in the Loyalty Islands, obtained by Mrs. Gill from the natives. He was also the author of several works giving in a popular form many particulars of native manners and customs, e.g., "Life in the Southern Seas, or Scenes and Incidents in the South Pacific and New Guinea." On his last return to the Pacific, he went as general superintendent of the Society's Missions in that part, and had his headquarters at Sydney, N.S.W. On one of his visits to this country he came to reside in the neighbourhood where I was then living, and I had the good fortune to make his personal acquaintance; and I can but address to his memory the last words of a note he wrote to me as he left England for Rarotonga " Vale, Amice!"

Sir Joseph Prestwich was also a Fellow of our Institute, and though his scientific honours were gained as a geologist, we bear in mind a recent occasion on which he exhibited a remarkable collection of extremely rude flint implements, found in Kent, and communicated a paper thereon which was the subject of much discussion at the time, and has led to the continuance of the ventilation of the question of a pre-palæolithic race by papers subsequently laid before us by other authors expressing different views upon it. In a communication which I have been permitted to address to the current number of the "Zoologist" by the courtesy of its editor, our former director, Mr. Distant, I have attempted briefly to indicate some of the grounds upon which, as it seems to me, the conclusions which Sir Joseph Prestwich indicated on that occasion may be maintained.

Since the close of the year, the name of Dr. Frederic John Mouat, the explorer of Andaman, is to be added to our list of losses by death.

#### 14. British Association.

At the meeting of the British Association in Liverpool, the excellent suggestion made by the President of the Anthropological Section, that the discussions in that section should centre round the various racial problems of Eastern Europe, was fruitful, and though it may have seemed to some that it gave to the section a rather pronounced tinge of archæology, the other branches of our science were not neglected.

In your name I joined in the expression of sympathy with the movement in Holland for celebrating the centenary of the birth of Andreas Retzius. Our Secretary has since emphasized that sympathy by a written communication on the part of the Council.

# 15. An Ethnographic Bureau.

A paper of great practical importance was read by our colleague Mr. C. H. Read, on the subject of the establishment of an Ethnographical Bureau. It was remarked in the dis-

cussion that every one of my predecessors in this chair had advocated this most essential undertaking, and I will not be the first to fail in doing so. An empire like that of the United Kingdom ought certainly to possess some central establishment in which a knowledge of the races of the empire might be acquired. The splendid precedent of the Bureau of Ethnology attached to the Smithsonian Institute, confined as it practically is to the races which formerly existed on the American continent, shows what might be done on the much wider field of inquiry that we possess, if only the public spirit of the nation and its rulers could be awakened to the priceless value, not to say the absolute necessity, of the enterprise. I cannot use more forcible language than that of my immediate predecessor on this point: "It is little short" (said Professor Macalister) "of a national disgrace that in the largest empire of the world, within whose bounds there are nearly as many separate peoples and tribes and kindreds and tongues as in all the other nations put together, there is no Imperial Department having for its functions to collect and classify the facts of the physical, psychical, and ethical history of our fellow subjects."

# 16. The Ethnographic Survey.

The Ethnographic Survey Committee of the British Association, upon which this Institute is largely represented, has continued its useful work. The collection of physical observations from various parts of the United Kingdom is steadily growing, and at the same time collections of folk-lore are being made. One such, accumulated in Dumfries-shire, is appended to the Committee's report for the present year, as part of the work done for the Committee by the Rev. Dr. Walter Gregor. Our Fellow, Mr. Gomme, the founder and former president of the Folk-Lore Society, read before the Association a masterly paper on the scientific treatment of folk-lore. That paper is appended at length to the report of the Committee, and its perusal and study will well repay those who desire to know how folk-lore should be studied. Mr. Gomme has, I think,

devised a plan by which the strange beliefs and customs, which have come down to our own times from our uncivilised fore-fathers, may have a definite meaning and significance extorted from them. It is gratifying to find that in Switzerland, in the United States of America, and in Canada, Ethnographical Survey Committees have been appointed to work on the lines laid down by the British Association Committee.

# 17. Childhood Society.

Another Committee, associated with Section H, has now completed its labours; that for dealing with the backward and ill-developed children who abound in schools. This is a subject in which Sir Douglas Galton has shown a keen interest, and it has been followed up by Dr. Francis Warner, an eminent physician, with great skill and ability. It was felt, however, that the problem, as one of anthropology, has now been exhausted, and that it has become rather a question of social economics than of science. Some gentlemen and ladies interested in its further development have formed themselves into a Childhood Society, which it is hoped may be of some practical utility. I have had great pleasure in associating myself with them, and our colleague, Mr. R. Biddulph Martin, M.P., has become the treasurer of the Society. While it is to a certain extent a departure from strict anthropology, its labours will, I hope, tend to enlarge our knowledge of infant life, and of the causes which so often render it unpromising if not hopeless unless dealt with in time.

# 18. Hartland's " Legend of Perseus."

In my last year's address I referred to the second volume of "The Legend of Perseus" as written by one who, though not a Fellow of the Institute, was a zealous worker in its field. In drawing your attention to the completion of the trilogy by the publication of a third volume, I am now happy to say that its author is one of our body, my friend Mr. Hartland having responded to the appeal I addressed to anthropologists in the

November part of our Journal by asking me to propose him for membership. I congratulate the Institute on his election, for I hope it gives promise of many valuable communications to us in future. The work in question founds upon the Legend of Perseus a complete study of Tradition in Story, Custom, and Belief, and shows how certain primitive ideas are the common possession of man in all parts of the world and all degrees of civilisation. In the first volume this doctrine was applied to the Supernatural Birth; in the second to the Life Token; in the third to the Rescue of the Maiden and the Medusa Witch. I have the strongest possible conviction that the light thrown by such researches as those of Mr. Hartland will spread, and that in it we shall perceive more and more clearly as time goes on what are the laws which govern the development of traditional ideas. The originality and courage of Mr. Hartland's views are tempered in this last volume by a large infusion of scientific candour, reticence and modesty.

# 19. The Problem of Transmission.

In association with this subject, so well handled by Mr. Hartland, I will ask leave also to draw your attention to a valuable memoir recently published in the "Internationales Archiv für Ethnographie," by one of the most distinguished and honoured of my predecessors in office, Professor Tylor. From the new evidence afforded, on the one hand, by the publication of Duran's "History of the Indies," as to the game of patolli among the Mexicans, and on the other by a photograph of two players engaged at the game of pachisi in India, Professor Tylor adds to the force of the comparison between the two games which he drew in our Journal eighteen years ago. In measuring the evidential value of the strong similarity between these two games, as proof of Asiatic intercourse with America before the time of Columbus, he raises the problem, as yet only imperfectly solved, but which he of all men is the best qualified to guide us in attempting to solve: What kind and amount of similarity in the arts or customs or

opinions of different districts may justify us in denying, or perhaps I should say require us to deny, the possibility of their independent development and to claim them as results of transmission? I think that upon the right solution of this problem the future of anthropology very largely depends. So far as I feel myself qualified to observe the processes going on in the minds of anthropologists occupied in the various branches of our science, it has appeared to me that there is a growing tendency to discountenance inquiries into transmission, and to consider phenomena as related to a particular stage in civilisation arrived at by the operation of general laws, rather than as arising from communication between the peoples. An interesting illustration of this occurs to me in connection with some remarkable coincidences which were brought before the notice of the Royal Society of Literature by Professor Max Müller, who raised this very problem. He showed that some Buddhist rituals and modes of thought resembling those of certain sections of Christianity could be traced back to a date anterior to the Christian era. Some of his hearers, among them I believe the noble President of the Society, viewed with jealous indignation what appeared to be an attack on the originality of Christianity, and was indeed put by the right honourable author as an evidence of intercommunication. If such a matter had been discussed before this Institute, instead of before the Society of Literature, I am much inclined to think we should have busied ourselves rather with the investigation of the adaptation of the peculiarities in question to the forms of thought, which had been gradually developed among the respective peoples, than to any speculation as to the place where such forms of thought arose or the manner in which they had been transmitted. I look upon this tendency as entirely healthy; I associate it with the tendency, which I also think to be a growing one, of seeking the simplest and most obvious explanation for phenomena; and I believe that both together are full of promise for the future of anthropology.

It was moved by Sir H. Low, seconded by Mr. Gomme, and unanimously resolved:—

"That the thanks of the Meeting be given to the President for his address, and that it be printed in the *Journal* of the Institute."

The SCRUTINEERS gave in their Report, and the following gentlemen were declared to be duly elected to serve as Officers and Council for the year 1897.

President.—E. W. Brabrook, Esq., F.S.A.

Vice-Presidents.—H. Balfour, Esq., M.A.; John Beddoe, Esq., M.D., F.R.S.; Sir John Evans, K.C.B., D.C.L., F.R.S.; Sir W. H. Flower, K.C.B., LL.D., F.R.S.; Francis Galton, Esq., D.C.L., F.R.S.; Sir Hugh Low, G.C.M.G., F.G.S.; Rt. Hon. Sir John Lubbock, Bart., F.R.S.; Prof. A. Macalister, M.D., F.R.S.; Cuthbert Peek, Esq., M.A., F.S.A.; Lieut.-General Pitt Rivers, D.C.L., F.R.S.; Prof. Edward B. Tylor, D.C.L., F.R.S.

Hon. Secretary .- O. M. Dalton, Esq , B.A.

Hon. Treasurer.—A. L. Lewis, Esq., F.C.A.

Council.—G. M. Atkinson, Esq.; W. M. Beaufort, Esq.; J. F. Collingwood, Esq., F.G.S.; J. G. Garson, Esq., M.D.; G. L. Gomme, Esq.; W. Gowland, Esq., F.S.A.; Prof. A. C. Haddon, M.A., D.Sc.; T. V. Holmes, Esq., F.G.S.; R. B. Holt, Esq.; Sir H. H. Howorth, M.P.; R. Biddulph Martin, Esq., M.P.; A. P. Maudslay, Esq.; J. L. Myres, Esq., M.A.; F. G. H. Price, Esq., F.S.A.; R. H. Pye, Esq.; C. H. Read, Esq., F.S.A.; F. W. Rudler, Esq., F.G.S.; Prof. Arthur Thomson, M.A.; Coutts Trotter, Esq., F.G.S.; M. J. Walhouse, Esq.

Assistant Secretary.-J. Aplin Webster, Esq.

Mr. Gomme expressed regret that there was no Bureau of Ethnography in this country, and suggested that this year, the 60th of our Queen's reign, would be a favourable time for this and other Societies to impress on the Government the necessity of assisting in the foundation of such a Bureau. It was unanimously resolved that the Council take steps during the present year to find the best means of forming such a Bureau, and obtaining for it the support of Government.

A vote of thanks to the retiring Vice-President, the retiring Councillors, the Secretary, the Treasurer, the Auditors and the Scrutineers, was moved, seconded, and carried by acclamation.

# ANTHROPOLOGICAL MISCELLANEA AND NEW BOOKS.

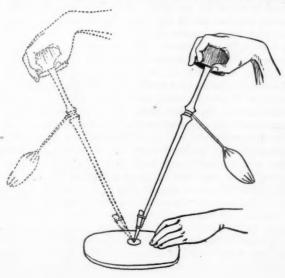
Readers of the Journal are invited to communicate any new facts of especial interest which come under their notice. Short abstracts of, or extracts from letters, will be published at the discretion of the Editor. Letters should be marked "Miscellanea" and addressed to The Secretary, 3, Hanover Square, W.

We are indebted to Mr. J. Atkinson for the following interesting communication accompanied by the sketch which is here reproduced. This method of drilling is unusual, the employment of a weighted bag apparently not being known elsewhere.

The Editor of the ANTHROPOLOGICAL JOURNAL.

Dear Sir,

I send you a drawing of the drill used in former times by the natives of New Caledonia to pierce their stone axes—although the pump drill was also known to them. It is quite new to me, nor do I see any mention of it in any of my books—although perhaps within the knowledge of wider students of Anthropology. It



seems a remarkable instrument to have been evolved by so comparatively low a race in its utilization of centrifugal force for the economy of labour. Its peculiar action in use would seem to explain the fact of the abnormally large external diameter of the holes found in such axes, and which it was difficult to explain even on the improbable assumption that an unnecessarily large borer was used.

The hard flint-like stone used as borer was lashed to the end of a stick about 2 feet long. The other extremity ended in a About 8 inches from this and within a blunt rounded point. groove carved in the wood was fixed a bit of string, some 7 inches long, to the other end of which was fastened a bag containing a stone 3 of a pound in weight. The worker took in his right hand the half of an empty cocoanut shell, this he placed on the upper blunted end of the stick, thus forming a loose ball and socket joint. Pressing lightly he began by giving it a gentle circular motion which rapidly increased in speed; the weighted bag at once flew out, and thus with very little physical exertion the process of piercing is continued; the left hand holds to the ground the axe which is to be bored. This instrument is now so little known that the Curator of the Noumea Museum, M. Bernier, had much trouble in getting a model made by some old natives.

Thio, New Caledonia, January 28, 1897. J. J. ATKINSON.

This Peruvian vase, recently acquired by Mr. Read for the British Museum, is of exceptional interest on account of the figures represented in relief on its sides. It will be seen that the warrior who is being carried off by the lower figure has two spears in his left hand, and what appears almost certainly to be a throwingstick in his right. Hitherto the examples of throwing-sticks known to belong to the Peruvian area have been very rare. One from Riobamba, Ecuador, will be found figured by Dr. Max Uhle ("Wurfhölzer der Indianer Amerika's." Mittheilungen der Anthr. gesellschaft in Wien, vol. xvii, 1887, Plate IV, Fig. 2, where it is seen upside down); the other, from Quito, by Dr. Stolpe ("Ueber altmexikanische und Südamerikanische Wurfbretter." Archiv für Ethnographie, vol. iii, 1890, Fig. 6). Both thus belong to the inland country where pottery of the type represented in our illustration was probably not made. Dr. Uhle is of opinion that the throwing stick was not in general use in ancient Peru; but the design upon this vase suggests that it was at any rate known in the lower country nearer the coast, though whether it was regularly used in warfare or not is still uncertain. Any discovery tending to increase our knowledge of the area over which throwingsticks were used in South America is always worth recording, and it is to be hoped that further examples either of the weapon itself or of representations of it may be found from the same locality.

The throwing-stick on the present vase seems to belong to the same general type as the Quito and Riobamba specimens, the large hook near the butt being meant for the first finger, thus taking the place of the pegs or holes familiar in other types. This hook, which appears to be of exaggerated size, would in the actual object be at right angles to the small peg at the opposite end against which the butt of the javelin would rest at the moment of throwing. That it is here represented as in the same plane is probably due to artistic necessity, for unless seen in profile, neither peg nor



hook would be as conspicuous as their importance required. In the weapons from Quito and Riobamba the finger-hooks are comparatively small; in that from the former place the hook is made of a spur of a bone tightly lashed with cord. MR. JAMES EDGE-PARTINGTON sends the following corroboree music from the Burnett River, Queensland, forwarded to him by Mr. Charles Handley:—

#### Burnett River Corroboree.



\* Signifies the beat of boomerangs, nullah nullahs, etc., while the gins pad the opossum skins.

Songs and Specimens of the Language of New Georgia, Solomon Islands. Collected by Lieutenant B. T. Somer-VILLE, R.N.; with an Introductory Notice of Melanesian and New Guinea Songs, by SIDNEY H. RAY.

PART I. INTRODUCTORY, BY SIDNEY H. RAY.

It is a remarkable characteristic of the Song-Literature of Melanesia and New Guinea, that only in a very few examples has it been possible to give a translation of the words used, which will convey sense. Wherever songs have been collected, whether in Fiji, in Banks' Islands, New Hebrides, Solomon Islands or New Guinea, they are only partially intelligible. They are so, even to the natives themselves who sing them, and all the efforts of missionaries and others acquainted with the languages often fail to remove the obscurity. When, however, the songs are of some length and become narrative or historical poems they are much more intelligible, although containing still many obscure passages. Lieutenant Somerville, during his recent ethnological inquiries in

New Georgia, collected and sent to me several specimens of native songs, and these have suggested the collection and illustration of specimens from other parts of Melanesia and New Guinea, with references to the published literature on the subject.

#### 1. Fiji Songs.

An account of Fijian versification with specimens was given by Hale in the Philology of United States Exploring Expedition, and some further specimens have been given by Waterhouse in "The King and People of Fiji," and by A. S. Gatschet. The latter are mostly derived from the collection of Rev. Lorimer Fison. But by far the most important notice of Fijian literature of this kind is a paper read at the Ninth Congress of Orientalists by Sir Arthur Gordon (now Lord Stanmore), on Fijian Poetry,5 in

which is given various translated portions of songs.

In Fiji songs are of two kinds. The sere, sung or chanted sitting, and the meke, sung to accompany dances, or during the preparation of kava (yagona). It is noted that the latter especially are "very ancient and very unintelligible," that the songs are still an essential part of the lives of the people and are composed as occasion offers. Concerning sacred songs, Sir Arthur Gordon remarks as follows: "The sacred songs are exceedingly difficult to translate. This difficulty is due to several causes. One is that the language in which they are written differs from that in everyday use, whether only in being older, or as being purposely couched in different terms, I do not venture to pronounce positively, though my opinion inclines strongly in the latter direction. Another is to be found in the extremely elliptical and allusive nature of the phrases used. A third and one often not sufficiently thought of, is that most of them were intended to be acted, each singer or band of singers having a distinctly assigned part. To read one of them straight through is like reading a scene in a play in which there is a good deal of animated conversation and action, as if it were printed without any punctuation, without any hint that there is more than one speaker and without stage directions or changes of scene."

As specimens of Fijian songs in the native language I extract the following from Waterhouse.6 No translation was given by the

collector.

See page 357.

"King and People of Fiji," p. 425.

<sup>&</sup>lt;sup>2</sup> United States Exploring Expedition, commanded by Charles Wilkes, U.S.N., during 1838-42, vol. vi, "Ethnography and Philology," by Horatio Hale. Philadelphia, 1846. 4to.

3 "The King and People of Fiji," by Joseph Waterhouse. London, 1866.

<sup>8</sup>vo.
4 "Specimens of Fiji Dialects," edited from manuscripts of Rev. Lorimer
Zeitschwift für Allgemeine Sprachwis-Fison, by A. S. Gatschet, in "Internat. Zeitschrift für Allgemeine Sprachwissenschaft," II Band. Leipzig, 1885, pp. 193–208.

5 "On Fijian Poetry," by Sir Arthur Gordon, in "Transactions of the Ninth Internat. Congress of Orientalists," vol. ii. London, 1893, pp. 731–753.

Song of the Tobacco. (Vanua Lava.) It may be provincialised.

Dru taki waitui, dru tale; Cici muri ko Lewatagane; Sa maqa na tavoko e na masi? A tavako li ka koto mai vale, Qai la'ki soli kei na yakavi. Solia vakacava caviraki? Qisomakina ki na tulu ni vale. Ualili mai e dua na tobe, Ualili mai yasa mai cake, Au cata na vakawati ni qase, E dua vei au na gone Mei vivivi ni tavakoe.

War Song. (Mbau).<sup>1</sup>
Ai tei vovo, tei vovo,

E ya, e ya, e ya, e ya; Tei vovo, tei vovo E ya, e ya, e ya, e ya. Rai tu mai; rai tu mai; Oi au a viriviri kemu bai.

Rai tu mai; rai tu mai; Oi au a viriviri kemu bai.

Toa alewa tagane
Veico, veico, veico.
Au tabu moce koi au
Au moce ga ki domo ni biau.
E luvu koto ki ra nomu waga,
E kaya beka au sa luvu sara.
Nomu bai e wawa mere
Au a tokia ka tasere.

# 2. Banks' Islands Songs.

An account of the song dialects of the Banks' Islands is given by Rev. Dr. Codrington in his work on the Melanesian Languages. Speaking of the Songs of Mota he points out:

1. That the songs are never made in the common language, nor is their language that of any neighbouring place.

2. Each island has its own song dialect.

3. There is nothing to prove that the song dialect is an

archaic form of the common language.

It is also shown that the differences from the common language "consist (1) in the casting out of vowels and consequent contraction of the words; (2) in the occasional addition of a final vowel; (3) in the use of words not used at all or used differently in the common language; (4) in the imitation of foreign forms.

In Mota the person composing a song is called a *towtowoas*, one who measures, *towo*, a song as. The song is called after the person

<sup>1 &</sup>quot;King and People of Fiji," p. 320.

who is the subject of it, and is na asina, his song, it is na towona, his measure, of the poet, who is said to tara the subject of the song. To chant the song is we sur o as, to draw out the song.

I quote from Dr. Codrington' a part of a song about Bishop Selwyn, in the song dialect of Mota, Sugarloaf Island, and also a part of the same song in the Motlay, Saddle Island Dialect.

#### Mota.

Oeoewa wu roro sa? naroron i Besope ni gam tal na Vano lave; nalnik na lan lave, nasrik na ar Merlav, ni se turtur ale lame; gis nok melov ok; melov rer me rere levran Rohenqon, nam loslos wore sur na te mul Ulsilane, ro Tingormew se tur gor norue.

#### Motlav.

Acoewae! wo reronse? wo reron e Besove ni gamtel weveno mee, nalni nelenlav, e nasri neer Merlav ni se turture le lame; gis wo melovok; melovrer emrer levrane Rehirqon, nam loslos wor enaen te mul Olsilade, Retingormew se tur gor doro.

#### Mota Prose Version.

Ocoewa! o roro sa? na roron Bishop, we gamo tale o Vanua Lava; nalanik o lan lava, nasuruk o aru ta Meralava, ni we turtur alo lama; gis! nok molov aka, o molov rere me rere lo varan Rohengon, na me loslos wora, ape na te mule Ulsilane, ro Tingormew we tur goro narua.

# English.

Ococwa! News of what? News of the Bishop, he sails round Vanua Lava. My wind is a great wind, my bones are the Casuarina tree of Merlav; he stands in the sea. Oh! my sailing of the ship; the sailing on the flow of the sea has flowed into the bosom of Rohengon; I am nothing but rejoiced because I shall go to New Zealand; Ro Tingormew withstands us two.

#### 3. Tanna Song, New Hebrides.

The only specimen of Song literature which I have from Southern Melanesia is the following from the island of Tanna. It presents many of the features of the Fiji and Banks' Island songs, and though mainly in the Kwamera dialect, contains several Weasisi words, obscure phrases, and even borrowed and modified English words. The subject is the shooting of a Weasisi man named Yehlu (called Yeru in the song) by Pûsî. The Rev. W. Gray gives the song and notes as follows:—

Ua rên rên raô Ua rên rên raô Ua rên rên raô Ua rên raô Rên rên rǐnraô.

These words have no meaning so far as we know.

Codrington, Rev. R. H., "The Melanesian Languages," Oxford, 1885, pp. 309 and 321.

2.

Awê! Nîŭt keikei! Awe! Nîŭt keikei! Awe! Nîŭt keikei! Irîpen îau Yakatĕrĕng paison.

3.

In kŭrî rineivî In kŭrî rineivî In kŭrî rineivî Ravahî meven Rŭmaha ravahêraka.

4.

Pŭpŭm tĭ-ratîûta Pŭpŭm tĭ-ratîûta Pŭpŭm tĭ-ratîûta Rĭnahtî³ Yĕrŭ Mahtî nûprei nirŭs.

5.

Awe! kaha Pûsî—(3 times.) Rĭnarukî Yĕrû, Mûranî neirŭs.

6.

Awê nĭma îmak! (3 times.) Yĭma afwê Pûsî Rarûkî îau.

7.

Yĕrû ramasŭk—(3 times.) Makwein abŏmŏs. Awê, nŭrŭk Nŭpau.

8.

Awê, nŭrŭk Nŭpau! (3 times.) Nŭrŭk Nŭpau! Awê, Tata Yeru!

9.

Kahû ramasŭk. (3 times.) Makwein abŏmŏs:— Awê mĭrâk Yeru!

10.

Awê, nĭma îmak Ti-arîêr Mata nokweikwei. 2

O beloved Niut.1

Lead me there. That I may feel the poison.

3.

The evil spirit prompted.

He takes (it) and goes. Rumaha takes (it) away.

4.

By and by he will ascend.4

He has shot at Yeru.

And shot the trunk of a nirus.

5.

Aha! my grandfather Pusi; He has shot Yeru, And shoulders his snider.

6.

Oh, my kindred! That fellow Pusi Has shot me.

7.

Yeru keeps crying:— And calls long:— Oh, my child Nupau.

8.

Oh, my child Nupau!

My child Nupau!

Oh, my father Yeru.

9.

Kahu keeps crying, And calls long. Oh, my father-in-law Yeru!

10.

Oh, my kindred
Stand you three there.
And look at the raw flesh of
the wound).

11.

Awê, yakînamapau! Nîma îmak tî-o Mŭvihî îau. 11.

Alas! I have become weak.

My kindred do ye (something),
And take me.

Notes.—¹ Niut is probably the spirit of a dead person who is supposed to give help to his descendants when they set out a bowl of kava for him to drink. ² Paison is the English word poison. ³ Rinahti is partly Weasisi and partly Kwamera dialect. ⁴ Yeru was shot on rising ground. ⁵ Nirus is a tree with poisonous bark. ⁶ A corruption of the English word snider. ⁵ Yeru's son with his wife Kahu arrive.

### 4. New Guinea Songs.

The few specimens of New Guinea songs known differ very little in general character from those of other parts. Macgillivray so long ago as 1852 gave an untranslated song in the Tassai (Brumer Island dialect). The following are given by the Rev. James Chalmers.<sup>2</sup>

1. A Motu song sung on lakatoi, taught to Edae' by the Spirit.

Bokibada oviria nanai, Ario viriu na bo veriauko; Bokibada eraroi uanai, Irope umanai ela Dauko. Ela lao nauaore diaia; Pinuopa diaia uruero nairuovo, Ela lao melarava memeru.

2. Another of the same character.

Edae Siabo hidia daqai Ba negea dobi, Edae Siabo, Edae a Siabo, Edae tu mai. Bava hadaqai balaru dobi, Edae Siabo, Edae a Siabo, Edae a Siabo, Edae Siabo Hidia hadaqai.

3. Kabadi songs used when gardening.

"All the young bananas are placed round the plantation ready for planting, the planter takes one of the best, stands in the centre and looks inland; holding in his hand the banana, he says:—

Lariba dubaduba o. Jaribari dubaduba o. Jaribakeri dubaduba o. Egu dui dubaduba o, O egu orona dubaduba o.

Lifts it up and looks at it; addressing it he says:—
O natuguo dobi haragaharaga, heau haragaharaga;

<sup>&</sup>lt;sup>1</sup> Macgillivray, J., "Narrative of the Voyage of H.M.S. 'Rattlesnake,'" London, 1852, p. 274.

London, 1852, p. 274.

<sup>2</sup> Chalmers, Rev. J., "Pioneering in New Guines," London, 1887, pp. 117, 118.

<sup>&</sup>lt;sup>3</sup> Edae was the legendary introducer of sago from the west to the Motu and tribes on the eastern shores of the Papuan Gulf.

When the bananas are bearing, and the time has come to cover them, he stands in the plantation and chants:—

Egumigumi mo e
Bamo be gumigumi e
Oi aubeghasi a gumigumi e
O bamo be aroberobe me aubeghasi
Aubeghasi aroberobe moe e-e-e-e.

When finished tying, he stands and turns towards them all and chants:-

E au mia e Sinahu lau mia e Daha rasenai e Sinahu lau mia e-e-e-e.

Used when planting yams:-

Asinavari daudau (four times).
Huevara daudau ,, ,,
Bedovari daudau ,, ,,
Naevari daudau ,, ,,
Eogovari daudau ,, ,,

When the yams are just appearing above ground:-

Sinari kenikeni (twice). Hueri kenikeni ,, Ruela kenikeni ,, Naera kenikeni ,,

Concerning these songs Mr. Chalmers' says "I made many efforts to discover the meaning of these songs, but the natives themselves have no knowledge whatever of their purport."

In the "Annual Report on British New Guinea" for 1890-91. Mr. R. Guise gives some specimens of Ballads and Songs in the dialects of tribes in the Central districts of New Guinea. I transcribe these in full.

#### LEKU-LEKU.

(Ballad recording noteworthy events in the history of a tribe.)

These particular portions are in a language which is not spoken in this neighbourhood and are the oldest verses of the song known. It resembles the language spoken by the tribes inhabiting the south end of the Macgillivray Range.

### I.

Kita vetali vetalimina Wapuli Roga is talking of fighting, is talking of fighting.

<sup>&</sup>lt;sup>1</sup> 1892, Queensland, "Annual Report on British New Guinea from 1st July, 1890, to 30th June, 1891." Appendix GG, "Native dialects," p. 108, "Vocabulary of Bula'a dialect." Preface by R. Guise, Esq.

### II.

Alepa melo gemi melina bua rigona pakini roli pitagoana.

The Alepa men were coming armed. We drove them away.

### III.

Kara gota revaluai leva tupuna. Should we throw a spear, a man is hit.

### LEKU-LEKU, from Kwaipo, in the Macgillivray Range.

Oi babine aririgo taona tena oaririgo aririgona. Leku leku, &c.

Varaina gela malaga varaina variana roka keto vegata. Leku, &c.

Oi babine tipi ono koro maina. Leku, &c.

Nege pune maoma kora verariana. Leku, &c.

Nega vanuga nuganana origo auna rage auna. Leku, &c. O you woman, softly walking, softly creeping.

O you man, you come from afar, and fall on the path.

O you woman, catch a quail with a hand net.

O you girls, who is strong to catch a pigeon.

Inside the village, let us march up, let us march down.

# Leku-leku, a later composition, written in the tongue used in Kamali.

Olulaga oi buikima maniga pala popolona epuru wai puru voina leku-leku ve leku.

Olulaga oi gimamu kora legenáanegi manega amo nana namo amo taliana.

Olulaga irunaga dubu vili wai poraage.

Oi tanna kone melo gili wana mo gitana.

Oru manu naro gege lagi nama.

Vanuganani gera olo vanuganai ora gena gipa manu noveni varáa varáana.

Gilalaka Iamolaka kila veagi veagimu ma Molegolo ropina pana kepoleana. O, Olulaga, your hair is thick and long as the leaves of a "popolo."

O, Olulaga, when you shake your kora (man-catcher) a heavy dew falls.

O, Olulaga, with the handsome face, you hanged the head on the dubu (sacrificial stage).

Come, look at the boy from the bush, playing on the shore with a white crane.

I am like a red parrot, I fly

away and return.

There is a village on the summit of a hill where men are taught wisdom by an eagle hawk.

Gilalaka and Iaomolaka, boasting who of us is strong enough to overturn the platform on Molegolo. Molegolo avalana lau minana minana poro kulou melau minu vagi ana.

Polo kulo kilamu lai nevaina oru aueku noi nepinu pinu-

Tinara ularana gena gemo kakona pe gau rigo wagira Kalo vanuganai pelewa kamu lavilavina.

Melo tariku mo rakáauta mo gurana mo rakáauta ulanana mole konena mo tulu tepatepa na.

When the north-west wind blows lightly on Molegolo, your head-dress of feathers will be displaced.

I do not want a head-dress, I will bind twine around my

Our mother is at Kalo, where the sun sets, let us be like the gemo (a fish) and seek her out.

My brother, what are you carrying; and what are you doing in the water, splashing it about with your feet.

From the Papuan, as distinguished from the Melanesian districts of New Guinea we have few specimens. The Rev. J. Chalmers gives the following "Song before smoking" from Vaimuru, in the neighbourhood of Bald Head. It is said to have no meaning.1

> Arau mai e! Io mari ē! Erere mai e! Aueva e! Io mari e e!

Api amē! Iau ē! Aaumako e! Iau ē! Kuku! Ueako!

The words and tune of a song from Muralug or Prince of Wales' Island in Torres Straits have been given by Professor Haddon in his account of the Ethnography of the Western tribe,2 and also in his description of the dances of Torres Straits.3 The words of this differ a good deal from the common speech, and are difficult to translate.

## 5. Songs from the Solomon Islands.

With the exception of the songs collected by Lieut. Somerville, which follow in the second part of this notice, I only know of the following song given by Mr. C. M. Woodford in the language of Aola, on the north-east coast of Guadalcanar Island. No translation is given.

Te mani, to mani, To kai sambelagi mi, Sambelagi tete mi, Tete mbili-mbili loko mi, Loko petepete mi, Petepete uli mi, Uli mani kande mi, Kande ma kondo mi,

<sup>1</sup> Chalmers, Rev. J., "Pioneering in New Guinea," London, 1887, p. 68.

<sup>2</sup> Haddon, A. C., "The Ethnography of the Western Tribe of Torres Straits," in "Journ. Anthrop. Inst.," xix, 1890, pp. 378, 380.

<sup>3</sup> Haddon, A. C., "The Secular and Ceremonial Dances in Torres Straits," in "Internat. Archiv für Ethnographie," Bd. vi, 1893, p. 148.

Woodford, C. M., "A Naturalist among the Head Hunters," London, 1890, p. 39.

Saria bombotoni mi, Eo mai-u-ai mi, Eo eo kiki mi, Ki kiki rongo mi, Ro rongo kindia mi, Tindisotio.

The language is practically that of the island of Florida, and some of the words are intelligible, but I cannot make coherent

sense of the entire song.

In the following portions of this paper are given some songs collected by Lieut. Boyle T. Somerville, R.N., during a surveying voyage of H.M.S. "Penguin" on the coast of New Georgia. The language of this island is best known by the vocabulary (in four dialects) by Lieut. Somerville, which has been printed for the Hydrographical Department of the Admiralty. An account of this publication appeared in the "Journal of the Anthropological Institute for November, 1896."

The dialects of the songs and of the story which follows them are those of Rubiana in the south-west lagoon and of Marovo, the general dialect of the coast natives. The language presents many divergences from the usual type of Solomon Island tongues.

In what follows the songs and story are given as Lieut. Somerville wrote them and with his own notes and translations.

PART II.—Songs from New Georgia, by Lieut. B. T. Somerville, R.N.

1. "Sitima Belapura." (Balfour's Steamer: i.e., H.M.S. "Penguin.")

#### Marovo or Eastern Dialect.

The song apparently describes the arrival of H.M.S. "Penguin" in the Marovo district of New Georgia. The part concerning Kelly and Griffith (the former a trader of Rubiana, the latter of Ngarasi, on the Northern Coast) is obscure. The two boys who gave me the words, made signs that it referred to the (apparently) hand-cuffing of some one. I could connect it with no incident that came to our knowledge either on board the "Penguin" or in camp.

The last fives lines seem separate, and went to a different chant

to the remainder.

Names in italics are those of places in the locality known to us.

Englandi Americana serosere Mbuka Nuki kiona pa India, pa coasts (?)

Nunggini. New Guinea.

Pa tu Laiti, pa tu Mata, pa tu Lila, pa tu Kevu, pa tu Mata. Past (?)

<sup>&</sup>lt;sup>5</sup> "A Vocabulary of Various Dialects used in New Georgia," compiled by Lieutenants B. T. Somerville and S. C. Weigall, R.N., H.M.S. "Penguin," 1893–4–5. Hydrographic Department, Admiralty, 1896.

Hore pa sera Marovo, boro Chiri, boro Kara, boro Tolu, boru Mane, Down by coast (?)

boro Chiri, boro Toa, boro Kiva.

Hore mai pa kolo Checheu, pa kolo Nele, pa kolo Chalu, pa kolo Down go by open sea

Dolunggu, kolo Onuku.

Hore mai pa boro Kua, hono hore mai pa kolo Kicha, pa Down go by down come by open sea (two off-

Mbulo; lying islands).

Hore mai pa Chipura, pa Enekonggu, hore mai pa Munjiana, pa Down go by down go

Minjalai.

Katekatini pa Orooroki, Mbote, pa Bili Sangora, Bili Tolelo, Bili (Bili entrance to lagoon)

lupa, Bili Konggu:

Kare Chombuani, kare Cholani: pa Karu-njiu, pa Karu-njuke, Not not (an island)

Chavichaviani;

Mai pa Chochopo, pa Ngoru-ngorunu mati. (a point) reef.

Makasina hore la pa Sangava Lumalike;

By and bye down go by (the Lumalike entrance) (facing Repidistrict),

Mai pa mati Mbaku, mati Vehi, mati Vio, mati Onasanga, mati Come by (a reef in Lumaliki entrance) reef reef reef

Ndola, mati Ringgo. reef.

Hore mai pa *Utuha*: hore mai Lumbe Chalu, maniwa.

Down come by man of war.

Chake nia kwaka sitima ta Keripi, tingonea atisegoro pa steam-boat Griffith (a trader)

Sydney konggu, pa Sydney Lupa, tonua kwina.

Kwini ndoku pa pepelete atu kwaka pa sitima nahinini, kwaka Queen sit boat steamer

tenga Kiripi. Griffith.

Hore mai kwaka sitima Somerville, mai pa sera Okocho urungia steam-boat

Bera-bera.

Matui ngululu Kelli pia herani "Penguin," ka pa pa

Kelly (a trader)

"Penguin."

Boro wa Kiripi tinoni limangu ka leli matau ni ene ni lapa ni koka Griffith

pini.

Talokete pia herani ngu pa Karu Tengguna, omi pa Karu pa

Afraid here carry I to see

Ndovela.

Pia herani ngu pa Karu Vindalu, pa Karu Nepichi, pa Karu Here carry I to (Many lagoon islets are considered double and Kaminde, pa Karu Cheruma, Karu Kachona. called Karu, two, in consequence).

Omi pa Karu Namburu, Karu Ngenggulu, ngu, talokete eraka.

See I afraid I.

Tapa meka wari wuke kisa machu pa maniwa.

\*\*One shark son man-of-war.\*\*

Nongge nongge kale matonde.

side making (i.e. right hand side).

Punja punja kale hendende. side left.

Tapa meka wari ndumi pira he viri.

Tapa meka wari wuke tinoni pira.

one man that.

Kisa machu maniwa. Shark son man-of-war.

2. Kolomoru (The Night Wind).

Kolomoruna Kawo Konji Night wind the (name of a small stream at Repi)

Kawo Tsalu keli mai. (Another small stream) up come

Kolomoruna longgi Chalu.
Night wind (probably Tsalu again).

Kawa pa Konji: temara pa Wamba Kawa pa Tsalu, m—m—m—.

3. The following song is sung to the same air :-

Monjenangara mbolembolena

Mbulimbolena telemba be la Kiripi.

Griffith (a trader).

Waka ta Repi, lulu pake masa. Ship of Repi

Surangi Rakupisu, hero tsura pa kolo.

(name of a man) open sea.

Honahapu pa Tsokura, pa Koveli, pa Khambu.

4. This song is also sung to the same air :-

Tua longoa pa Patasiu

Oma me ngoa pa Karu Maneki (Name of an island)

Mbemarono m-m-m-m.

Kurukuru pa Ndakolai Pigeon

Angga hangga pa Reuvolo

Mbemarono m—m—m—m. Kurukuru pa Mbekala *Pigeon* 

Ulo tamana, ulo tinana, ulo ndasine. Weeps his father, weeps his mother, weeps his brother.

Chimbetusa ki narona m—m—m. Tira vare ngu karo kale Tendo vendove m—m—m—m.

All these songs were given to me by one lad and they are sung to the same air. If the words fail before the end of the air is reached, the singer hums the remainder with closed lips.

The last song may be partly in the Mbariki, "bush" dialect, though it was given to me by a "salt water" lad. Mbemarono, in any case is Mbariki dialect for "name" or "your name."

5. Song accompanying war dance of Gatukai Natives. (Eastern Dialect.)

Pekapeka turu Dance

Pekapeka turu Dance

Polotu uasana

Egoria tsatsaveli head

Turusangi.

6. The following was chanted by the Marovo district (also Mungeri) lads in derisive imitation of the mode of speech of the Gatukai men.

Ndeki ndeki pa Chaino—o—o: Song-dance of

Lulu wa i ngua ngina lenggu hori kisa—a—a. wait (?) I soon kill below shark.

 A Rubiana song given to me by a small boy from Ngarasi.

### Kokohai.

Koko hao ti-o-ke Tani teko ti-o-ke Koko hao ti-o-ke Ngula teko ti-o-ke Koko hao ti-o-ke Tuma teko ti-o-ke Piti koli ti-o-ke Pa sa Saikile ti-o-ke He Lilio ti-o-ke Sa Sambeti ti-o-ke Atu ngua ti-o-ke Va tu khose ti-o-ke Muki wose ti-o-ke Asa puta ti-o-ke Sasa puta ti-o-ke Sighi tio ti-o-ke Wuliwuli tio ti-o-ke Dingudingu leagu ti-o-ke Ngumo pitu ti-o-ke Hele pitu ti-o-ke Ngasa pitu ti-o-ke Embe pitu ti-o-ke.

 Song supposed to represent the sound of a Jew's harp. (Eastern dialect.)

## Koioro.

Koi-oro paipa, Koi-oro pepa, Koi-oro pipa, Koi-oro paipa.

9. Norowai.

Tótoro tiowai Tótoro towao Kíworo kíworo Nórowai nórowai.

I was informed by the small boy who gave it to me, that this was a "hope" or sacred song. I repeated it to one or two men, but they did not know or understand it.

10. Two other songs given me by the same boy: (Probably Eastern dialect.)

#### Tombi.

Tembo témbolo Tombi témbolo Tamba témbo o Timba témbolo,

#### Inasi.

Kesa kesa Kesa ruha Kesa savoro Oroketi Tívula wawao Revosia Túmaneki tumanegi.

## PART III. A STORY IN THE DIALECTS OF NEW GEORGIA.

A short story, not an original native one, but composed for the occasion. I in English, II in Island-English, III in Marovo. IV in Rubiana.

The story was first done into Rubiana by a native understanding English fairly well, and afterwards from Rubiana into Marovo, by a native understanding both tongues, so that whatever mistakes are in the Rubiana, the same are in the Marovo as regards the original English.

### I .- English version.

Once upon a time, a man called Tasa went out to the Tomba Islands (the barrier islands that surround the North Coasts of New

Georgia) to spear fish.

After a little while he caught a makasi, and had just placed it in his canoe, when another makasi came, and putting his head out of the water thus addressed him:—" Why have you killed my wife? By and bye my children will all die if they do not get their food from her."

Tasa replied, "Yes, but don't you see that my children will die too if they do not get fish to eat." The makasi returned, "Very well then, I shall go and tell my friend the shark, and he will catch hold of you, and kill and eat you." And he dis-

appeared into the sea.

However, Tasa went on spearing fish, and when evening came he hoisted his sail to start back home to Mungeri. Hardly had he done so before a great wind rose, with rain, thunder, and lightning. His canoe quickly capsized and was broken by the waves, and Tasa began to swim for his life. However, the makasi had been as good as his word, and he came, bringing with him a shark and a crocodile. The shark seized Tasa by the head, the crocodile by the legs, and they tore him in two before his screams could call the attention of his friends.

Then the makasi laughed, and, going home, soon got another wife, who looked after the children so that none of them starved.

## II .- The same story in Island-English.

Long time before, one fellow man, name belong him he Tasa, him he go along Tomba, along canoe catch him fish along spear. By and bye one fellow makasi he come, him he catch him, him he put him along canoe. Close up another fellow makasi he come, he put him head belong him out of salt-water, he sing out, "What name you shoot him woman-makasi belong me? by and bye altogether picaninny belong me he die suppose he no catch him kaikai belong him."

Tasa, him he talk, "What name you talk him, suppose picaninny belong me he no kaikai makasi, he all o'same picaninny belong you, altogether him finish, he die." Man-makasi he sing out: "All right, you look out, me go talk him shark, by and bye he kaikai along you." Him he go away along salt-

water.

Tasa he go, he shoot him plenty fish, sun he go down, he put him up sail, he go quick along Mungeri. Big fellow wind he come, rain he come, plenty thunder and lightning he come, canoe he capsize, canoe he broke, Tasa he swim, he swim along. Shark he come, crocodile he come, Man-makasi he come, shark he catch him Tasa along head, crocodile he take him along leg, he pull, he pull plenty hard. Tasa he sing out, no man he come, by and bye he broke, he finish.

Makasi he laugh: him he go place belong him, he catch him another fellow woman: picaninny belong him he no die.

III .- The story in Márovo or Eastern dialect.

Mekarani lavata, meka kilana, meka tinoni Tasa la pa Before big one name. one man Tasa go to

Tomba, bambao ighana.

Tomba spearing fish.

Pana ngina ighana makasi heru mai hinambu, hinambu On the soon fish makasi carry come

makasi ngina raihi. Walusa pa mola na makasi. Heru makasi soon Placed (?) in canoe the makasi Carry

mai makasi panangina mekarani. Vurama pa kolo makasi come makasi soon before from ocean makasi

"Hoi honama manemaneki tanguraka sa mbohoronia tamhoi ?
You woman mine why your

lenggu mbeto komburu tanguraka, kani vai niningo lelenggu die altogether children mine not fish die komburu."

children.

Tasi seki tinana. "Sa njiama ni hamu kani ngongo soku Tasi killed mother. Why talk it you not it eat enough

komburu tanguraka, kande ngongo komburu ndio la va." children mine it is not to eat children.

Njiama ne ta sa makasi, "Omia chake nia makasi manda va lusa: Talk makasi  $Look\ I$  it makasi

omia sa kiso moko ta usu ma nia ngu lenggu ngua."
look I shark of it come I die I."

Chongga la pa inderi ia.

Dive go in sea him.

Chokuna ighana va la i pa ngongo katingga. Njoro wo ini wa Many fish go it to eat some. Set sun

toia tepe, pule mai pa Mungeri. Ngetena cherani live it sail return come to Mungeri. Big hurricane (?)

are panagina ipu, na mungata, na rani, na paratata, wind soon night the rain the day (?) the thunder

umbata, na ragi, are. Ngina opo mola, opo takuri, surf the wave wind. Soon capsize (?) canoe broken

opo pomi tinoni, kiso basioto, na vua, na makasi.

man shark crocodile.

Herua kiso chaveh hataomi tera, la hua usu kuri mahile; la ia.

Took shark head leg go it

wai lima mahile hata omi. Tasa kukeli, kukeli, kani fire legs. Tasa sung out sung out not (they)

mai. Makasina takuri mbeto. come. Soon torn finish.

Chomu makasi la pa kolo, manda wa lusa tinoni.

Makasi go to ocean man.

Meka hokiti manemaneki, kani lenggua komburu tania.

One buy (?) woman not die children his.

Note.—There are several places where the English meaning has evidently not been apparent: and, indeed, the whole story seemed a strange sequel of sentences to the interpreters without a familiar idea, or anything which made sense, while it was being translated bit by bit. Once or twice they appear to have translated the little bits of side explanation which were made to them, not as part of the story but to elucidate the meaning of some particular clause.

## IV .- The Story in Rubiana dialect.

Pukerani lavata, keke posana, keke tie Tasa ila pa Tomba hi Before big one name one man Tasa go to Tomba hena hopere na ighana. catch spear the fish.

Ngina igana makasi hena mai siramu, wagi makasi siramu hena. Soon fish makasi.

Surangi pa mola ra makasi. Kohite imaisa makasi keke wo Put in canoe makasi.

ti kaina. Vurana mbatuna ra makasi, vura pa kolo:
Put up his head makasi put up from ocean

"Agoi sigona sa mbareka lengge tangurao, na sasi bugoro nia I woman mine

si agoi, kote mate mbeto puku komburu tangurao, lopu hena soon die altogether children mine not get

khinane, kekanggu mati. food dead.

Tasa se jeama agoi. "Sa sejeama ni siramu wenagua ke lopu Tasa talk I. "not

khanikhani so komburu tamu agoi, ke kangu mate ke lopu food children thine not die not

khanikbane." Njiama me tu sa Makasi. Dogoriatu hakefood. Talk Makasi.

niatu mamu kukilinia manda la ia. Dorea sa kiso meke Shark

tararatanea manda vovete nia tu. Hako tararata arao ke hako mati angua. Arao hongga la pa kolo. I dive (?) go into ocean.

Taloa si khita sigona soku igana manda khanikhani.

Plenty fish food

Londu sa rimata we ko matana sa tepi, awugo ra sa arimiata pule

mai pa tani Mungeri. Nomana rani mbongi pe mai sa come to that Mungeri. Long day night come

iguchu, hote mai sa ruku, kote meke paka, fire (lightning?) come rain soon gun (thunder?)

samangaru kalijerua meke kapi. Kote meke opo sa mola, bad. Soon canoe

meke moku, meke tunoro, meke rani ramda kiso, basietto,
break shark crocodile

mai sa Makasi. Mai wagia sa kiso sa mbatu palekia taloa come Makasi. Come the shark the head take

lopu ta ndaoro. La sa mbasietto kharettia nene kele tamoku.

not of. Go the crocodile

Laso meka wagi sari na limana nene. Tasa kukeli, lopu mai foot (?)

Tasa sing out not come

sa tie. Kohiti moku mbeto.
a man break finish.

Heghari sa makasi la pa kolo mandu wa lusa ia.

the Makasi go to ocean.

Keke wotiki mbareka lengge. Lopu mati sa komburu tamu agoi.

One buy (?) woman. Not die the children thine.

## Native Dyes and Methods of Dyeing in Korea.

By E. B. LANDIS, M.D.

Although it is scarcely a dozen years since Korea was first opened to foreign commerce, yet in that short time native dye-stuffs have been almost supplanted by the cheaper and better aniline dyes. Few of the native dyes are now in use, and those only in the more remote portions of the country. Of some it is almost impossible to obtain specimens, and of others the difficulty is less only because they are used in medicine or for other purposes than dyeing. This difficulty, of course, only refers to the prepared dyes, the plants and trees from which they are obtained being indigenous, will always remain.

## I. Red Dyes.

1. Cha Cho 紫 草. Obtained from the roots of the Lithospermum officinale L. var erythrorhizon.

2. Hong Hwa Lt. This is the dried blossoms of the Carthamus Tinctorius L. It is largely cultivated in gardens, both for its flowers and for its use as a dye. It dyes a bright scarlet. These dried blossoms are also used largely in medicine, being a favourite remedy for aches and pains.

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3. Hyang Il Hwa Cha 向日 龙子, lit. facing the sun, seeds. Seeds of the sunflower. Helianthus Annuus L. These dye a deep red. This plant is also cultivated for its showy flowers as well as for use in medicine. The children also eat the kernels of the seeds, discarding the shell. The natives assert that this plant is not indigenous to Korea, having been introduced from China several centuries ago, but at present it is found throughout the peninsula. The common name is Hai Păraki, i.e., Hope in the sun.

## II. Brown Dyes.

- 4. Sang Mok Pi 橡木皮. The bark of the Quercus Sinensis. The common name is Sang Su Ri. This bark dyes grey and ochre as well.
  - 5. Song Mok Pi 松 木 皮. The bark of Pinus Sinensis.

## III. Blue Dyes.

6. Nam Cho 藍 草. Leaves and stems of the Polygonum Tinctorium. The common name is  $J\ddot{o}k$ . The colour obtained from this dye is dark blue. The entire plant is used.

7. Chu Mok 林木. Wood of two species of Catalpa, the C. Bungei, C. A. Mey; and C. Koempferi, S. and Z. It dyes a

deep violet.

8. Nam Mok Pi 株 皮. The bark of the Machilus Nanmu Helms.

9. Cheng Tai 青黛. The stem and leaves of the Indigofera Tinctoria L. This dyes a dark blue and is used for dyeing women's

skirts, bed covers, and soldiers' clothing.

Only widows should prepare it, and until recent times only widows sold it, carrying it about from house to house. Should a married woman prepare it she must occupy a room separated from her husband until it is entirely prepared. Should a person die in the house or even a corpse pass the door while it is being prepared, it will be useless as a dye.

## IV. Grey Dyes.

10. Charcoal made from bamboo wood.

11. Charcoal obtained by burning the Bottle Gourd, Lagenaria Vulgaris L.

## V. Yellow Dyes.

12. Koi Hwa 槐 花. The blossoms of Sophora Japonica L.

13. Oi Cha 机子. Seed pods of the Gardenia Florida L. This is found in great quantities on the island of Quaelpart. In other parts of Korea it is not found growing wild but is largely cultivated. In the northern part of the peninsula it must be potted and kept in the house during the winter. Under these circumstances, therefore, it can only be grown for its beauty. The seed pods are strung up, one hundred on a string, and these are seen

hanging in the shops, from which strings a number are cut for purchasers.

They sell six pods for twenty-five cash, that is about a farthing.

These seed pods are also largely used in medicine.

14. Ul Keum \* &. The fruit of Curcuma Longa L. var Macropphylla Mig.

15. Hwang Paik Pi 黃 栢 皮. Bark of the Phellodendron

16. Hwang Keum 黃本. This is obtained from two species of Scutellariæ, the S. Macrantha Fisch. and S. Viscidulæ Bge.

### VI. Black Dyes.

17. Pung Mok 楓 木. Common name Sin Na Mu. This is

the wood of Liquidambar Formosana Hce.

18. Common writing ink, which is as in China and Japan, India ink. This is ground up into powder and mixed with water and thus used as a dye. No reagent is used for fixing the colour. This is not a commonly used dye, as if the material becomes wet or damp, the colour comes out and stains under-clothing as well as the body. For dyeing black, therefore, No. 17 is chiefly used.

## VII. Auxiliaries used in fixing dyes.

19. Oh Pai Cha 五 信子. Nutgalls found on the Rhus Semialata Murr. These are found chiefly in the province of Kang Wön, and are chiefly used for fixing dark colours, such as blue or purple.

20. Oh Mi Cha 五块子. Cranberries, or the fruit of Schizandra Chinensis Baill. These are found growing wild in the northeastern part of the peninsula and up as far north as Vladivostock, in Siberia. The fruit is dried and is used chiefly in fixing red dyes. The fruit is also a favourite remedy for certain diseases. As an aid in fixing colours it is not in very common use outside of the districts where it is indigenous.

21. Paik Pan 白雲. Alum. This is the most commonly used of all the agents for fixing dyes. It is also used largely in medicine. It is imported from China. It is not indigenous to Korea.

22. Kem Keum 🚡 🏠. Ferri Sulphas. This agent is used only for black or very dark dyes.

23. Vinegar. This is very rarely used, not being nearly so efficacious as the other reagents.

## Paints and Painting in Korea.

Paints unlike dyes have not been so universally replaced by those of foreign manufacture. The paints are all sold in powder, and to get them ready for use glue is added as well as water. This glue is made by boiling ox-hides in water for some time, and then allowing it to cool.

I. Yön Chi L. A red paint made from Hibiscus Rosa-Sinensis. It is also used as a paint for the cheeks and lips of

women (chiefly prostitutes) and children.

II. Poun 粉. A white paint obtained from the Mirabilis Dichotoma. The seeds of this plant are boiled, which causes the shells to burst. They are then dried and the shells discarded. The inner body of the seed is then made into a cake with the aid of water. This is also used for powdering the face of girls and children. (Vide "Painting and Tattooing.")

III. Mök . Black paint which is the ordinary ink of the pensman, and of which there are many kinds varying in price from

a farthing a piece to a shilling.

IV. Chu Hong 标 紅. Vermilion paint which is a native red sulphuret of mercury. This is simply mixed with glue as above.

V. Chang Tan 漳 丹. A vermilion or scarlet paint is red oxide of lead.

VI. Hwang Tan 黃 丹. A reddish paint Litharge.

VII. Sök Hwang 石 黃. A yellow paint which is the yellow sulphuret of arsenic or orpiment. This substance is all brought from China.

VIII. Sam Nok. A green paint. Cupri Subacetas or Verdigris.

This is made from copper.

IX. Sök Kan Chu 石 間 朱 A reddish paint. This is made from refuse sulphur. It is taken and roasted over the fire.

X. Il Chöng, I Chöng, Sam Chöng 一青, 二青, and 三青 This is prepared from Indigofera Tinctoria L. These three kinds of paint are three different shades of blue, 三青 being the darkest.

Over and above these ten varieties of paint there are a number which are imported from China. These I have not attempted to

describe as they are not indigenous.

These paints are used only by the common people for painting screens and panels, the painting of their dwellings being forbidden. According to Korean law no buildings can be painted save the Palace and the official residences of the District officials. To this must be added Buddhist temples or rather the buildings which contain images of Buddhist saints. Those apartments occupied by the monks cannot be so decorated.

## Painting and Decorating of the Body.

I. Tattooing is not practised in Korea.

II. The Moxa is often applied over the anterior fontanelle of children. By means of this a small space is burnt about as large as a farthing. This is for the prevention of convulsions, a common cause of death amongst children in Korea. It is more common in the two north-western provinces than in other parts of Korea.

III. Over the anterior fontanells of children is also applied cinnabar. This is for preventing evil humours from entering the child's skull and so causing sickness and death. Cinnabar is supposed to possess miraculous powers over demons, as well as evil influences of all kinds. The most efficacious charms are

written with cinnabar, and it is one of the necessary ingredients of all medicines used for the prolongation of life. The same belief is held in China, and there is very little doubt but that it came to Korea from China.

IV. The lips and cheeks of prostitutes and children are reddened.

This is done with Hibiscus Rosa-Sinensis.

V. Powdering the face. This is done with a powder made from the seeds of *Mirabilis Dichotoma*. The covering of the seeds is discarded and the inside alone is used. For the method of preparation for the market see "Paints and Painting." In applying it to the face, a portion of the cake is reduced to powder and mixed with a little water and so applied. It is used by women and children.

VI. The temples and back of the head are also daubed with safflower. The root of *Acorus Calamus* is taken and cut into two. One of these cut portions is then dipped into safflower and a daub is made on each of the temples and on the occiput. This is applied only to children, and is supposed to keep away demons.

VII. Staining of the finger nails.

Girls stain their finger nails by petals of *Impatiens*. The thumb and index finger nails are not stained, only the three remaining ones, or sometimes only the nails of the ring and little fingers.

Sometimes married women and little boys stain their nails in the same way, but as a rule it is only confined to girls. The origin of the custom is attributed to Yang Kwei-fei (the all-powerful favourite of Ming Hwang, one of the Emperors of the Tang Dynasty in China, A.D. 745), who had a deformed nail and to cover this deformity she stained it. The origin of the wearing of finger-rings in Korea is also attributed to this same person, who wore them in order to hide a blemish on her hand.

The Palseolithic Deposits at Hitchin and their relation to the Glacial Epoch. By Clement Reid, F.L.S., F.G.S., of the Geological Survey. "Proc. Royal Soc.," vol. lxi, No. 369 (March 26, 1897).

In the Journal of this Institute for February, 1897, p. 305, there is a notice of the Report of a British Association Committee appointed "with the object of clearing up certain doubtful points as to the relation of Palæolithic man to the Glacial Epoch." Hoxne was selected as the best place for the investigation, and the results obtained there made it desirable to ascertain whether the conclusions thence derived would receive support from a similar exploration at Hitchin, where Palæolithic implements have frequently been found. Accordingly, at the instance of Sir Archibald Geikie, a grant of £50 was obtained from the Royal Society for that purpose, and Mr. Clement Reid, who was manager of the Hoxne exploration, was placed in charge of the investigation at Hitchin.

At Hitchin boring was much hindered by the "coarse, loose and

watery character of the strata," which caused the abandonment of borings through the closing in of their sides. Attention was mainly directed to the relations of the Chalky Boulder Clay, to the Palæolithic loams, borings being made in the pits out of which implements had been dug. Only one boring passed through undoubted Boulder Clay, though in another borehole "some blue chalky clay" was penetrated, and in a third derivative fossils from the Boulder Clay were found in the lower part of the old alluvium." The section in which Boulder Clay was found is here given.

Contains.		and the language of the second	ft.	in.
Palæolit	hic	Yellow brickearth and small stones	14	6
Ancient	allu-	Yellow and white marl and silt	2	0
vium		Yellow loam and small chalk pebbles	0	6
*	1	Chalky Boulder Clay	9	0
		Loamy chalky gravel (base of Boulder		-60
Glacial		Clay)	2	0
		Gravelly sand (boring stopped by large		
		stones)		0
			36	0

The high level at which Chalky Boulder Clay was found, and its absence, or representation by material derived from it, at lower levels, in borings nearer the centre of the channel, suggests to Mr. Reid that "the channel was, to a large extent, excavated, or reexcavated after the deposition of the boulder clay, as was the case at Hoxne."

The ancient river alluvium is entirely overlapped and hidden by the overlying Palæolithic brickearth. The trend of the buried channel appears to be from south to north, and runs parallel to the course of existing streams. The stony brickearth yielded scarcely anything but Palæolithic implements, and the ancient alluvial deposits below, though full of plants and shells, were without any trace of man. The mammalian remains all came from the whitish marl and silt immediately below the Palæolithic brickearth. They consisted of Ursus; Equus caballus, Linn.; Rhinoceros; Hippopotamus (a waterworn bone); Cervus elaphus, Linn.; Elephas primigenius, Blumb.

Mr. Reid notices the very striking general resemblance between the beds examined at Hoxne and those at Hitchin. On attempting to correlate them, however, the bed with arctic leaves, conspicuous at Hoxne, is found to be absent at Hitchin. He adds, "At each locality the same story is told. Some time after the passing away of the ice the land stood higher than now, so that the streams had a greater fall and valleys were cut to a somewhat greater depth. Then the land sank and the valleys became silted up with layer after layer of alluvium, to a depth of at least 30 feet, the climate remaining temperate. The next stage, when an arctic flora reappeared, is only represented at Hoxne. The third

stage in the infilling of the valleys is shown in the curious unstratified decalcified brickearth with scattered stones and paleolithic implements, identical in character at Hitchin, Hoxne, Fisherton and other localities, which irresistibly suggests a mingling of wind-transported material and rainwash."

A full list of the fossil remains found and the details of the

various borings made are given.

T. V. HOLMES.

"Secwana Dictionary." English - Secwana and Secwana-English. Compiled by John Brown. Printed for the London Missionary Society by Butler and Tanner, Frome and London, 1895. Sm. 8vo., 466 pp.

This is a new edition of a volume which originally appeared nearly twenty years ago, and will prove exceedingly useful to those who are brought into contact with the native races of South Africa. The language (commonly called the Sechwana) is that spoken by the Ba-tlhaping tribe in Bechwana-land, and is generally understood by the Bechuana tribes in the Transvaal and in the regions between the Transvaal and Kalahari Desert. It is the most important member of the Central Sub-Branch of the Southern division of the great Bantu linguistic family, the Zulu and Kafir representing the Eastern, and the Herero of Damaraland the Western Sub-Branches of the same division. Bechwana nation are rapidly being brought under the influences of civilization, and three of the chiefs, Khama, Bathoen, and Sebele visited England in 1895 in order to obtain help in various enterprises for the benefit of the people. Mr. Brown gives some "Hints to learners of Secwana" as an introduction to the dictionary. These comprise in the simplest possible form the necessary grammatical elements for the formation of simple sentences and phrases in the language. The book is well printed, of a convenient size, and has rounded corners for carrying in the pocket.

S. H. RAY.

The American Anthropologist. Vol. ix, No. 12. "Ornithological Vocabulary of the Moki Indians," by Dr. Edgar Mearns, U.S.A. (illustrated); "Stone Images from Mounds and Ancient Graves," by Cyrus Thomas (illustrated); "The Vigesimal System of Enumeration," by Cyrus Thomas; "Australian Class Systems," by R. H. Mathews.

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